AUDITING PROCEDURE

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PREFACE

So much good material has already been published on the subject of auditing that one naturally hesitates in making further additions to the supply. In fact, there can be very little justification in adding to this class of literature unless the contribution be of such nature that something of really practical value results.

This work, tho it makes no claim to any finalities, is an attempt to deliver to the student of auditing and to the beginning practitioner a guide on procedure. Not only is it the intention to cover the various accounts that must be examined and analyzed in an audit and the reasons for such inspection, but it is more vitally the object to outline the actual methods, or procedure, necessary to secure satisfactory results from such examinations and analyses. Not what and why, but how—that is the essential message of this book.

Within the limited scope of this work it has, of course, been impossible to delve into accounting problems affecting every peculiar type of business organization. The object of the book is a general one, and the remarks herein must therefore be limited by that object.

It is almost needless to state that the standard works on auditing have been freely used as aids for subject matter as well as for arrangement. It will be noted that the arrangement follows the more acceptable forms of balance sheet and profit and loss statement construction.

It is hoped that this work will accomplish its mission of supplying the necessary tools for actual practice in as efficient a manner as other texts have developed the theory, principles, and objects of auditing.

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AUDITING PROCEDURE

CHAPTER I

AUDITING AND PUBLIC ACCOUNTING

Auditing, unlike bookkeeping, is an analytical process. It not only implies a thoro knowledge of accounts and the principles underlying their construction, but demands the power to analyze properly the details of business transactions and to synthesize correctly the operations of a business. An auditor's report, therefore, must not be merely a logical grouping of accounts; it must reveal fully the value of certain forces in accomplishing desired results and their effect on the financial status of a business organization.

Many practitioners wrongly believe that the principal end of an audit is to verify the arithmetical accuracy of the books, to make a statement that the accounts were examined and found correct, and to add a balance sheet and a profit and loss statement. However, this conception is too limited. The auditor must be not only an accountant who understands thoroly the construction of the accounts examined; he must to a very large degree be a business analyst. He must reveal to the business man the effect of business policies and the factors which contribute to greater cohesion and efficiency in administration, office routine, factory production, or marketing. It is the business-building, constructive side of auditing that is of greatest worth.

The processes involved are merely means towards this constructive end.

To supply the requisite business education required of a public accountant is not the object of this book. It is limited to the actual procedure of making an audit. We have in mind, however, to impress upon the prospective public accountant and some of the present practitioners the need for a general business education so that auditors' reports may be real and valuable sources of information and histories of operations rather than stereotyped certificates. Our object is to encourage the prospective public accountant and auditor to fit himself to be more than a mere checker of figures—in fact, to make himself a business advisor.

If one hopes to become a really successful public accountant, he must study more than accountancy; he must meet requirements other than those demanded in the C. P. A. examinations. He should be a student of economics and industrial conditions; he should know public finance and taxation; and he should be somewhat familiar with market reports, business tendencies. and the politico-economic legislation of his country. Business administration and organization, corporation finance, banking, business law, office systems and management, cost accounting and efficiency work—all these form a part of the successful public accountant's fund of knowledge. He must have in addition to all these personality and tact.

The Value of an Audit

The value of audits and examinations is limited by their scope and nature. Normally a complete audit should be the most valuable. A limited audit or investi-

gation can have only limited value, altho many useful suggestions for improvement in accounting procedure may develop from such special examinations. For example, an examination to determine the extent of a defalcation may carry with it recommendations which may make a recurrence of such an evil practically impossible.

Outside of any special considerations a regular audit is valuable in that it affords an external, impartial verification of business operations and the financial condition. It assures the management of the ability of an accounting department and of the reliability of its statements. It has value for credit purposes either with the banker or with the creditor, and it is almost a necessity for the effective sale of securities. If the audit be truly constructive, it should reveal the important, vital tendencies that make for progress and profit and the forces that engender loss. It should show up the weak points in organization and the errors in accounting principle, and it should be instrumental, as far as possible, in developing the accounting procedure of a business organization. Thru constructive suggestions it should actually lead to the introduction of office economies and to greater efficiency in office and general business administration.

It may be that we are somewhat sanguine in our valuation of proper audits, but it has been our good fortune to be associated with public accountants giving values such as those outlined. It is encouraging to note that among high-class practitioners an equally high value is set upon the profession of auditing.

CHAPTER II

THE VARIOUS KINDS OF AUDITS AND EXAMINATIONS

Audits and examinations are usually classified according to their scope and character, as follows:

1. Balance sheet audits.
2. Complete audits.
3. Continuous audits.
4. Special examinations.

Balance Sheet Audits

A balance sheet audit is confined entirely to the verification of assets and liabilities or to the trial balance accounts after closing. Every asset and liability must be verified, but yet a balance sheet audit cannot result in an unqualified certificate as to financial position. Tho the Surplus Account in a balance sheet may be thoroly analyzed and some of its component elements thoroly tested, a true balance sheet audit precludes the detailed examination of the operations that create surplus. The auditor's certificate, following a balance sheet audit, may therefore state that the assets and liabilities as shown by the books or by the auditor's statement are correct and that they have been fully verified; but a certain qualification must be made as to the Surplus Account forming part of the net worth of the business. That qualification need not impair the value of the certificate, but it should clearly indi-

cate that no detailed examination of operations was included in the auditor's work. Any intelligent reader having confidence in the auditor certifying to a balance sheet will readily assent to the conclusion that, if the assets and liabilities are correctly stated, the net worth, including capital invested or capital stock (both subject to complete verification) and surplus, must also be correct, at least as a totality.

Complete Audits

The most satisfactory audit, at least from the public accountant's viewpoint, is the complete, or detailed, audit. This form of audit embraces the verification not only of assets and liabilities, but also of all income and expenditure during a period; therefore, no compunctions as to conclusions need be felt by the auditor, provided, of course, that he has done his work faithfully and accurately. There is greater value in a complete audit than in a partial one, because the effects of results from operation can be very clearly associated with changes in financial position. An analysis of operations is valuable, moreover, if the auditor is of that progressive type who believe that constructive suggestions as to operating or accounting procedure are *apropos* in an auditor's report.

Continuous Audits

A continuous audit may be either limited or complete in its scope and would therefore be confined to the purposes in view. But the essential feature of a continuous audit is its periodicity; it may be monthly, quarterly, or semiannually. It has the advantage of

keeping the accounting staff of the concern audited on the *qui vive* and reflects to the management very clearly, if properly done, the current tendencies of business operations. Practically all up-to-date business enterprises are equipped with accounting systems that show currently the results from operation; progressive business men are no longer content to wait complacently until the end of a fiscal period for a statement of profit and loss. The need for changes in pricing and the varying costs of production and of raw materials make monthly operating statements a necessity. To be sure that all these variations are properly included in the accounts, gives the continuous audit a very specific value.

Special Examinations

Special examinations are absolutely limited by their content and have in view merely the determination of some specific point. Such investigations may arise out of litigation; from suspected fraud or defalcation; from partnership disputes; from fire loss adjustments; from the interests of patent holders in royalties; from the demands of creditors; or from a host of special interests either within a business organization or outside.

The auditor's liability and responsibility is limited by the nature of his examination or audit. In a complete audit he should assume full responsibility; in all other audits or investigations he should make his client understand that his responsibility is limited by the scope of his engagement.

CHAPTER III

THE AUDIT OF BALANCE SHEET ACCOUNTS

The Cash Account

(a) Where all cash is deposited intact in bank and where all disbursements are by bank check:

The cash audit in institutions where all cash receipts are deposited in bank intact and where all disbursements are by bank check, is fairly simple.

To begin with, a cash account constructed in this manner can be proved in total. In other words, the entire receipts per cash receipts record should agree with the total deposits per bank statement, and the disbursements per check register should agree, after considering checks outstanding, with the bank's statement of withdrawals. If the genuineness of the bank statements has been determined and one is certain that they have not been altered, it will not be necessary to verify the footings of the cash receipts record or of the check register. The footings must be correct if they agree with the total of deposits and disbursements per bank statements, after making the necessary adjustments for deposits entered by the bank at the beginning of period audited or after period of audit which were entered on books prior to the beginning of period or before the close of the period respectively, and after making provision for outstanding checks at the beginning and the end of the period.

Even tho all receipts may be deposited intact, there is still a chance that receipts may not agree with deposits. This will be true if the bank deducts exchange when deposits are made. If the banker cannot be persuaded to abandon this practice and to substitute therefor a monthly statement of exchange charges to be paid by check, the depositor should pay these out of petty cash or provide a bank exchange column in his cash receipts record; this when deducted from the gross receipts, will agree with the banker's statement of deposits. As a rule, any reputable business house can induce the bank to present monthly statements of exchange and to accept all deposits at their face value. The same procedure is in use for exchange on drafts or interest on drafts; the banks render monthly statements for both. Interest on drafts discounted can, of course, not be predetermined unless the draft be specific as to date of payment. If the draft be "at sight" or "on arrival of goods," it will be impossible to know the exact date when the draft will be paid and the proceeds delivered to the discounting bank.

The auditor in verifying the Cash Account may ordinarily secure his proof of cash book footings by the use of the following schedule:

RECEIPTS:		
Deposits for period per bank statements		$........
Deduct:		
Deposits included in period by bank but shown as deposited prior to period in cash receipts record	$........	
Less entries in cash receipts record for checks cancelled after entry in check register (if any)	....	....

$........

Add—Deposits entered in cash receipts record during period but credited by bank subsequent thereto . . ..

Total Receipts or Deposits per cash receipts record . . $........

DISBURSEMENTS:

Total withdrawals during period per bank statements . $........

Deduct:

Outstanding checks at beginning of period included in withdrawals per bank statement during period but entered prior to period on check register . . . . $........

Less cancelled checks entered in check register but not mailed . . . .

$........

Add—Checks outstanding at end of period (included in check register but of course not shown on bank statement of withdrawals) . . . .

Total Disbursements per check register . . . . $........

The cash on hand at the end of the period will represent cash in bank per books. To reconcile this balance with the bank balance will require the preparation of a bank reconciliation statement, as follows:

Balance per bank statement . . . . $........

Add—Deposits per cash receipts record credited by bank subsequently . . . .

$........

Deduct—Outstanding checks

Check No.	Amount	
....	$........	
....	....	....

Balance per books . . . . $........

The balance per bank statement must be verified by a certificate from the banker addressed directly to the auditor. The deposits per books during the period, not credited by the bank until the month following, should be compared with the bank statement for that month sent to the auditor direct (if he is still on the engagement) or they should be confirmed by a letter from the banker.

If an audit is made several months after the close of the period to be covered, the auditor should secure a bank reconciliation at the time he begins the audit and the transactions should be traced back to prove the balance to which he will be expected to certify. The outstanding checks at the close of the period could then, as a rule, be actually verified because they would have been returned by the bank. This proof of outstanding checks should be thoro and should include the inspection of the cancellation dates on the checks, shown either by perforation or by rubber stamp. If the book balance is verified at a date subsequent to the end of the period under audit, the balance at the end of the period per books can be proved in the following manner:

Balance per books (on date subsequent to end of period) .	$........
Add—Disbursements from end of period to above date . .	....
	$........
Deduct—Receipts from end of period to above date . .	....
Book balance at end of period under audit	$........

In preparing a bank reconciliation statement, compare the cancelled checks for the last month in detail with the check register and the outstanding checks listed

from the check register. If there are checks outstanding issued prior to the last month, their nature should be carefully investigated; if any suspicion exists, the payee should be asked to pass on the validity of the check and to tell if possible why it had not been promptly cashed. If a voucher system is in operation, the vouchers authorizing payment and the bills attached should be carefully scrutinized.

In a complete audit the cancelled checks should be inspected and compared with the check register; if there are direct charges to Expense or General Ledger accounts, the nature of the payments should be investigated and authorizations secured. Where a well-developed plan of internal checks exists, it is not necessary to inspect all the checks, but thoro tests of several months should be made. At any rate, the auditor should satisfy himself that the checks are in payment of properly authorized purposes. Tho an indorsed check may serve as a receipt, the indorsement tells nothing of the basis or the validity of payment.

(b) Where receipts are not all deposited, but are used partly for petty cash disbursements:

It is somewhat unfortunate that certain business men cannot be convinced that the deposit in the bank of all receipts intact is the simplest and safest method of controlling their cash, and that the practice of using currency receipts for direct cash disbursements is not only dangerous but unsatisfactory from an accounting standpoint. In auditing the Cash Account under such conditions a great deal more care must be exercised and considerably more work performed by the auditor.

In verifying the Cash Account as a whole it will be necessary to account for the receipts that have been deposited by checking them with the deposits per bank

statements as well as for the receipts not deposited. After checking out the receipts deposited, consider the receipts not thus accounted for as a total, for the purpose of proving the actual currency on hand when the cash is counted. For the same purpose the disbursements must be classified as check and currency disbursements. The cash book footings for both receipts and disbursements should be verified for the entire period, the cancelled checks examined, and proper authorizations secured and inspected for the currency disbursements.

The cash balance at any time will consist of cash in bank and cash on hand. The cash on hand must be verified by actual count and the cash in bank in the manner heretofore outlined. If the actual cash balance verified is subsequent to the date to be covered by the auditor's certificate, the Cash Account must be proved back and the following form of working sheet may be used therefor:

	Bank	Currency	Total
Balance (at date of actual count) .	$........	$........	$........
Add—Disbursements from date covered by certificate to date of actual count	....	....	....
Deduct—Receipts from date covered by certificate to date of actual count	....	....	....
Balance at date covered by certificate and composition of cash balance	$........	$........	$........

The footings of both sides of the cash book must be verified to the date when the cash is counted and the totals inserted and initialed by the auditor in ink.

As a rule, where disbursements are made out of currency receipts and the entries on the cash book intermingled with check disbursements, no voucher system is in use and the distribution of expense comes thru the cash book. If this be the case, the disbursements should be vouched at the time the checks are compared with the cash book entries.

COUNTING THE CASH

Where all receipts are deposited intact and all disbursements are by bank check, there need be no special haste in counting the cash on hand. The cash on hand will, in most of such instances, be composed of a petty cash fund operated under the imprest system. The cashier must at all times have on hand in actual cash, or in actual cash and proper receipts, the specific sum called for by the Petty Cash Fund Account in the general ledger. The actual cash should be counted and classified as paper money, silver, gold, pennies, etc., and the receipts listed in detail. If any of the receipts are for advances, they should show the proper authorizations and these in turn should be referred to the authority indicated for inspection. Checks cashed for employees or others should be listed and the cashier instructed to cash them at once; an advance or a shortage might easily be covered by a fictitious check in the petty cash drawer.

The counting of the cash in concerns where the receipts are not all deposited, does not vary from any other cash count. As a rule, however, it will be found that there are a larger number of items carried as cash and that the safeguarding of the cash is not so efficient. Therefore, in such cases, greater care must be exercised in inspecting all cash items.

THE CASH AUDIT IN GENERAL

It is, of course, possible in some instances to prove the Cash Account thru other accounts. Thus, if all cash received comes from Accounts Receivable, the cash receipts must be the result obtained by deducting the final balance of the Accounts Receivable from the sum of the beginning balance and the sales charges for the period, provided there were no allowances, discounts, or accounts written off or adjusted. At any rate, a test of this kind would indicate the amount of credits to Accounts Receivable other than cash; if these were excessive, the knowledge thereof might prove the basis for uncovering manipulations or actual defalcations. Testing accounts thru other interdependent or related accounts is always valuable, and may lead to startling disclosures.

In auditing the Cash Account the auditor should assure himself that there are no liens against the bank balance, and where concerns operate branch offices, that all cash in transit is properly accounted for.

An auditor may be able in a number of ways to give constructive advice in connection with the Cash Account. To begin with, he should show the value of depositing all receipts intact in the bank and of paying everything thru bank check, the greater simplicity of handling petty cash disbursements thru an imprest system of petty cash fund, and he should propose the necessary forms—cash receipts record, check register, and voucher register—to accomplish these ends.

Many business men are still of the opinion that large bank balances are highly desirable. They may add color to a balance sheet, but as a rule they indicate

a weak business policy. Hoarding is elementary; to use money productively and always productively, is the essence of progressive business. Tho all surplus cash funds may not be used advantageously for expanding sales or enlarging production, they may always be placed in special deposit or savings accounts where they will draw interest; or they may be invested in readily convertible securities at even a higher rate of interest. The accountant will, as a rule, advise very wisely if he advocates income-producing uses for surplus funds and disparages excessive bank balances.

CHAPTER IV

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Notes Receivable

The value of a note receivable as an asset depends entirely upon the nature of the note and the financial strength of the maker. If a note is given in settlement of an account, the note, altho having a definite legal status, is hardly as good as the account and may indicate financial weakness on the part of the maker. If the note is a secured one, it is a much better asset than an account receivable. Thus, notes given regularly by farmers or groups of farmers for the purchase of large agricultural implements and machinery are not only, as a rule, signed by property owners to begin with, but they are secured by the implement sold (the title to which does not pass until the note is fully paid), and very often by an additional farm mortgage. Practically all the receivables of an agricultural implement house or manufacturer are in the form of notes.

In auditing the Notes Receivable Account, the first step is to call for the notes themselves. The account should include only notes not yet due. These may include either originals or renewed notes: the latter must be thoroly scrutinized, and if the renewal indicates a state of weakness on the part of the maker, proper reserves should be provided or recommended.

If the notes are not too numerous, they should be listed. The list should indicate the date, the maker's name, how obtained, the amount, the due date, whether original or renewal, the rate of interest—if any, and the amount of accrued interest. The makers should also be circularized by the auditor in order to establish the genuineness of each instrument. Where the notes are too numerous for proof by circularization, the validity of the notes should be tested. Fictitious notes might easily be substituted for accounts already paid, to cover up, at least temporarily, a defalcation. In offices where the cashier's accounts are daily checked against independent mail receipts and where the accounts and notes receivable records are kept separate from the cashier's department, the chances for manipulation are greatly minimized, altho collusion between departments might still exist. In other words, every possible means should be employed to fix the genuineness of the notes and to secure satisfaction of their being regular.

Notes of employees or officers should be separately listed and their nature fully determined. They should also be passed upon by someone in authority and they should be shown separately as employees' and officers' notes in the auditor's balance sheet statement. They should also be commented on in the text of the auditor's report.

Where notes are taken in large numbers, it will not be possible either to circularize the makers or to inspect all the notes themselves. Total test proofs of values tied up in this class of receivables may be made, however, thru independent sales records and cash records, and in some cases genuineness may be established thru partial circularization. All notes actu-

ally in the office should be inspected, and tho lists of these may not be prepared, all missing notes should be recorded. The missing notes can be readily established either from the notes receivable register or from other records that give full details of the notes; these records are, as a rule, very complete in agricultural implement offices. A trial balance of these subsidiary notes receivable records must, of course, be taken and compared with the controlling account.

The notes listed as missing may be found at the branch offices of the concern, or they may be out for collection with some bank, or they may have been already paid and the cash may therefore be in transit. In such cases the branch must be asked for a certificate covering the notes in its possession and the bank should be asked to give the same. Very often cash in payment for notes out will be in transit between the collecting agency and the company whose books are being audited, with the result that the bank will not report certain notes on hand. In writing to a bank the auditor should request a detailed verification of notes held, and he can facilitate matters by listing the notes purported to be held by the bank from which the certificate is requested; in that case, if the bank has forwarded collections on some of the notes, it can indicate the date of forwarding. This will enable the auditor to check the receipt of cash which was in transit when the request for certificate was mailed; he must be very certain that the cash received be recorded after the date on which the notes receivable were balanced.

Renewed notes, tho they should be listed separately, may not always be risky. In fact, it should be assumed that, where a good credit department exists, renewals

are granted only after very thoro investigation of credit standing. Not only should past-due notes be listed separately and shown separately in a balance sheet, but proper reserves should be created to meet possible losses therefrom. The past-due notes should be so scheduled as to show under various groups how long past due they are, as a guide for proposing the proper amount of reserve. Some of the notes may be unpaid because of disputes, and it is, therefore, suggested that the makers be circularized by the auditor so that the exact status may be determined in each case.

Notes Receivable Discounted

Probably the most desirable method of showing the contingent liability for notes receivable discounted is to carry an account for them on the general ledger. When a note is discounted by the bank, instead of crediting Notes Receivable thru the cash book a Notes Receivable Discounted Account should be credited. In stating the notes receivable on the balance sheet the following form of expression should be used:

Notes Receivable	$........
Deduct—Notes discounted	....
Net amount not due and outstanding	$........

Or, if the auditor prefers to show only the unmatured notes as an asset, he may insert the contingent liability as a footnote on the liability side of the balance sheet. No matter what method be employed, it seems very desirable to credit the proceeds from discounted notes

to a Notes Receivable Discounted Account, thereby showing plainly at all times the liability for a not infrequent contingency. When the bank advises payment, a journal entry will be made debiting Notes Receivable Discounted and crediting Notes Receivable. If the note is not paid, the bank must be repaid or it will charge the depositor's account, and the entry will be a debit to Notes Receivable Discounted and a credit to Cash. The delinquent debtor's note will then again be part of the regular Notes Receivable Account. If no renewal is provided for, the protested note and the protest fees, etc., should be charged to the note maker and Notes Receivable credited. The processes just outlined will not only keep constantly before a manager the contingent liability for notes discounted, but will also assure him that his regular Notes Receivable Account is composed of unmatured notes.

Accounts Receivable

The trial balance of the accounts receivable ledger should be checked with the balances shown in the individual accounts in the ledger. The total sum of these balances should, of course, agree with the general ledger controlling account.

A thoro scrutiny of the accounts receivable ledger should be made and a schedule prepared of all accounts past due. The past-due accounts may be grouped as follows:

30 to 60 days past due.
60 to 90 days past due.
90 days to 6 months past due.
6 months to one year past due.
Over one year past due.

Not only is a schedule of this kind of value as an aid in constructing an adequate reserve for bad and doubtful accounts, but also in a way it indicates the efficiency of the credit and collection department. In analyzing an account to fit the schedule proposed, one will often find that some of the balances represent old charges, whereas more recent charges have been promptly paid; the chances are, in such case, that the old items are in dispute, that goods returned have not been credited, that they represent duplicate charges, or that allowances may still be due the customers. Accounts of this nature should always be circularized by sending a statement with a request for verification or explanation direct to the auditor.

The accounts over a year past due should be reserved for in full and should be transferred into a suspense ledger. Some reserve should also be provided for accounts less than a year past due. As a rule, the total amount to be reserved may be fixed on a percentage of losses to sales basis; the past experiences of the company audited must be the basis of fixing this percentage. The auditor should recommend that accounts reported as uncollectible be written off against the reserve. It is recommended that accounts so written off be thoroly investigated and that their uncollectibility be vouched for by someone in authority. Much petty thievery has been committed in connection with accounts written off that were subsequently collected secretly by some enterprising, unscrupulous bookkeeper. In almost every instance, after all other methods have failed, bad and doubtful accounts should be reduced to judgments against the debtors, and levy should be had as quickly as the laws permit; all court costs should be charged to the debtors' accounts.

The auditor should report separately sales to debtors on dates subsequent to past-due charges; such a condition is a decided indictment of a credit department's efficiency. All old balances should be liquidated before additional sales are made, unless the sales be made on a basis of cash in advance. Even under the last circumstance some concerns have adopted the practice of applying the cash on the old account and of calling for an additional remittance if more goods are desired. This latter practice, when conducted tactfully, has been quite successful, due largely to the fact that the debtor has experienced a great need for the creditor's product.

Slow accounts in which the monthly balances are constantly increasing, are as a rule an indication of considerable financial weakness, and these accounts should be called to the attention of someone "higher up." Accounts in which remittances for round amounts rather than for specific charges are indicated, should be carefully examined and circularized. Journal credits to Accounts Receivable should never be passed without close investigation, and the credits should bear proper authorizations.

The Accounts Receivable as a total should be proved thru the sales records and cash books. This may be done by preparing the following schedule:

Accounts Receivable at beginning of period	$........
Add—Charge Sales for period (as per sales records) . .	....
	$........
Deduct—Cash received (as per cash book), discounts, allowances, and returned goods for period (as per allowance records, etc.)	....
Accounts Receivable at end of period	$........

The total of allowances, discounts, and returned goods should be compared on a percentage to sales basis with the same deductions in prior years in order to determine their normality, and, even after that, all deductions of this nature should be thoroly examined, or tested, and assurances obtained that they were regular and properly authorized.

Officers' and Employees' Accounts

The accounts of officers and employees should not be kept in the accounts receivable ledger unless they are charges for regular product sold. If they represent advances or charges of another kind, they should be in the general ledger or, if too numerous, in a separate ledger. The auditor should discourage accounts of this nature, for a company has no obligation to advance moneys to officers; the funds of any organization should be used in fostering the purposes underlying it and not in making loans to officers and employees. It has happened that officers of corporations have withdrawn large sums of money which were charged to their accounts but which they were subsequently unable to repay; such practices are clear cases of misappropriation of funds, and yet they are not uncommon and often go on without arousing much criticism until a wideawake stockholder protests.

Whenever accounts of this nature are found in the accounts receivable ledger, they must be scheduled separately by the auditor, their nature and age determined, and proper approval secured for them. They should be separately stated in the auditor's balance sheet and fully explained in his report.

CHAPTER V

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

INVENTORIES

There has, of late, been considerable discussion on the subject of the auditor's responsibility as to inventories. Some take the extreme position that the auditor should accept an officer's certificate as final and go no further than checking the arithmetical accuracy of the inventories and the pricing. Others might add the gross-profit test, whereas there are some who advocate actually testing the inventories by counting certain portions or sections thereof and by securing a quantity proof thru production and sales.

We can see no more valid reason for accepting an inventory on certificate only than for accepting a bank balance on certificate only. Actually to prove the Cash Account or the cash balance implies more than a mere bank reconciliation. The composition of the Cash Account must be investigated, the nature of the receipts and disbursements should be inspected, and the authorizations for cash expenditures secured. Inventories and stores records are as vital to a business as cash balances and cash books; both are concerned with convertible values, and it is just as essential that no irregularities appear in the one as in the other.

GOVERNMENT RULES FOR INVENTORIES

The rules for checking and verifying inventories have been so well formulated by the Federal Reserve

Board of the United States Government in their bulletin entitled "Uniform Accounting" as to warrant their inclusion in full herewith:

(1) Secure the original stock sheets if they are in existence and carefully test the typewritten copies with them and with tickets, cards, or other memoranda that show the original count.

(2) See that the sheets are certified to or initialed by the persons who took the stock, made the calculations and footings, and fixed the prices, and satisfy yourself that they are dependable and responsible persons. Obtain a clear and detailed statement in writing as to the method followed in taking stock and pricing it; also a certificate from a responsible head as to the accuracy of the inventory as a whole.

(3) A thoro test of the accuracy of the footings and extensions should be made, especially of all large items.

(4) The inventories should be compared with the stores ledger, work in progress ledgers, and finished product records and stock records as to quantities, prices, and values, and any material discrepancy should be thoroly traced.

(5) Where stock records are kept and no physical inventory is taken at the time of the audit, ascertain when the last physical inventory was taken and compare it with the book records. If no recent comparison is possible, select a few book items of importance and personally compare with the actual stock on hand.

(6) Where no stock records are kept, a physical inventory should be taken, preferably under the general direction of the auditor. After the inventory is completed, he should apply the same tests to verify its accuracy as if the inventory had been taken before his arrival upon the scene.

(7) When the cost system of a company does not form a part of the financial accounting scheme, there is always

a chance that orders might be completed and billed but not taken out of the work in progress records. Especially is this the case when reliance is placed on such records to the extent that a physical inventory is not taken at the end of the period to verify the information shown therein. In these cases the sales for the month preceding the close of the fiscal period should be carefully compared with the orders in progress as shown by the inventory, to see that nothing that has been shipped is included in the inventory in error. Cost systems which are not coördinated with the financial accounts are unreliable and frequently misleading. Special attention should be called to every case in which the cost system is not adequately checked by the results of the financial account.

(8) Ascertain that purchase invoices for all stock included in the inventory have been entered on the books. Look for postdated invoices and give special attention to goods in transit.

(9) See that nothing is included in the inventory which is not owned but is on consignment from others. If goods consigned to others are included, see that cost prices are placed thereon, less a proper allowance for loss, damage, or expenses of possible subsequent return. This does not include goods at branches, as the valuing of such stocks will be governed by the same principles as apply at the head office.

(10) Ascertain that nothing is included which has been sold and billed and is simply awaiting shipment.

(11) If duties, freight, insurance, and other direct charges have been added, test them to ascertain that no error has been made. Duties and freight are legitimate additions to the cost price of goods, but no other items should be added except under unusual circumstances.

(12) As a check against obsolete or damaged stock being carried in the inventory at an excessive valuation, the detailed records for stores, supplies, work in progress,

finished products, and purchased stock in trade should be examined and a list prepared of inactive stock accounts, which should be discussed with the company's officials and satisfactory explanations obtained.

(13) The auditor should satisfy himself that inventories are stated at cost or market prices, whichever are the lower at the date of the balance sheet. No inventory must be passed which has been marked up to market prices and a profit assumed that is not and may never be realized. If the market is higher than cost, it is permissible to state that fact in a footnote on the balance sheet.

(14) It may be found that inventories are valued at the average prices of raw materials and supplies on hand at the end of the period. In such cases the averages should be compared with the latest invoices in order to verify the fact that they are not in excess of the latest prices, and also with the trade papers, when market prices are used, to see that they are not in excess of market values.

(15) Make an independent inspection of the inventory sheets to determine whether or not the quantities are reasonable and whether they accord in particular instances with the average consumption and average purchases over a fixed period. Abnormally large quantities of stock on hand may be the legitimate result of shrewd foresight in buying at a low market but may, on the other hand, arise from serious errors in stock taking.

(16) Always attempt to check the totals by the gross-profit test and compare the percentage of gross profit shown with that of previous years. In a business where the average gross profit remains fairly constant, this test is a dependable one, because, if the rate of gross profit is apparently not maintained and the discrepancy can not be satisfactorily accounted for by a rise or fall

in the cost of production or of the selling price, the difference will usually be due to errors in stock taking.

(17) In verifying the prices at which the work in progress is included in the inventory, a general examination and test of the cost system in force is the best means of doing this work satisfactorily. In a good cost system little difficulty will be found with the distribution of the raw materials, stores, and pay roll, but the distribution of factory overhead cost is one that should receive careful consideration, the main points to be kept in view being:

(a) That no selling expenses, interest charges, or administrative expenses are included in the factory overhead cost.

(b) That the factory overhead cost is distributed over the various departments, shops, and commodities on a fair and equitable basis.

(18) No profit should be included in the price of finished products or stock in trade. The price list should be examined to see that the cost prices of stock are below the selling prices after allowing for trade discounts, and, if they are not, a reserve should be set up on the balance sheet for this loss. If the company takes immediate steps to increase the selling price, however, the amount of this reserve may be limited to the loss on goods which may have been sold since the close of the period to the date of the discovery.

(19) In case of companies manufacturing large contracts it is frequently found necessary to make partial shipments thereof. The question then arises as to whether it is permissible to include the profits on these partial shipments in the Profit and Loss Account. As a matter of fact, it is evident that the actual cost can not be known until the order is completed. It may be estimated that a profit will ultimately be made, yet unforeseen conditions, such as strikes, delays in receiving material, etc., may arise to increase the estimated cost.

It is better not to include the profits on partial shipments, but information of this character which may have its influence in the decision of the banker upon a proposed loan may properly be laid before him. Of course, an exception should be made in cases where the profit on the partial shipments largely exceeds the selling price of the balance of the order.

(20) The selling prices for contract work in progress should be ascertained from the contracts, and where it is apparent that there will be a loss on the completed contract a due proportion of the estimated loss should be charged to the period under audit by setting up a reserve for losses on contracts in progress.

(21) If a company has discontinued the manufacture of any of its products during the year, the inventory of such products should be carefully scrutinized and, if unsalable, the amount should be written off.

(22) The inventory should be scrutinized to see that no machinery or other material that has been charged to plant or property account is included therein.

(23) Partial deliveries received on account of purchase contracts for material, etc., should be verified by certificates from the contractors, both as to quantities and prices.

(24) Advance payments on account of purchase contracts for future deliveries should never appear in an inventory, but be shown on the balance sheet under a separate heading.

(25) Trade discounts should be deducted from inventory prices, but it is not customary to deduct cash discounts. However, this may be done when it is the trade practice so to do.

(26) While the inventory is being verified, the auditor should ascertain the aggregate sales for the last year. If the turnover has not been rapid, it may be due to a poor stock of goods. Some business men dislike to sell below cost and would rather accumulate a big

stock of old goods than dispose of the old and unseasonable stock at a sacrifice. The usual outcome is that the stock becomes unwieldy and funds are lacking to purchase new goods. The inventory and the gross sales, may, therefore, have a direct connection.

(27) It may be well to reiterate that interest, selling expenses, and administrative expenses form no part of the cost of production, and therefore should not be included in the inventory in any shape.

FORMULA INVENTORIES

In some concerns where production is by formula it is a fairly simple process to verify inventories, provided one is satisfied that the inventory at the beginning of the period and the purchases during the period are correct. In such a case it will be necessary only to multiply the total of each class of product sold by the formula for each class and to prove the production in process by material requisitions. The following table of proof might be found useful in this case:

Inventory at beginning (by quantities of each class of raw material)		....
Add—Purchases (segregated as above)		....
		....
Deduct:		
Sales made during period (by quantities and classes as above, based on formula)	....	
Materials in process at end of period (based on requisitions for uncompleted production)	....	
Materials included as per formula in finished goods inventory at end of period	....	....
Raw Material Inventory at end of period (segregated by classes)		....

This table will afford a total proof for raw materials inventory, and will, at the same time, if the raw materials inventory checks, establish the correctness of the inventories in process and of finished goods. If the raw materials total does not agree with the actual inventory presented to the auditor, then something must be wrong with the actual inventory itself, with the inventory of finished goods, with the inventory of goods in process, with the sales, with the formula, or with the beginning inventory.

CUT-OFF INVENTORIES

There are certain types of manufacturing industries where a very accurate check can be had on inventories thru so-called "cut-offs." By "cut-offs" are meant such points in production where materials have been completely used up and there is no stock on hand. Whenever a cut-off occurs, the book inventories are corrected if they need correction. If the cut-offs are frequent, then the elements productive of differences between book inventories and physical inventories can be readily traced and thereby practically eliminated. Wherever these cut-offs are used to adjust inventories, it is a simple task to prove the inventories at the end of a period by tracing purchases and production from the date of the last cut-off. Beginning inventories can also be very readily traced and verified.

VALUATION OF INVENTORIES

Many business men are quite willing to concede that inventories for published statements should be valued at cost or market, whichever is the lower, but they

are not very willing to write down their book inventories to market and thereby to disrupt their entire stores records. Nor are they willing to set up a reserve for the differences between market and cost prices when the next month may show a market price much in excess of costs. The limit to which most executives will go is to make a charge to Profit and Loss at the end of the year with a corresponding credit to the Inventory Account, which entry they will order reversed at the beginning of the next fiscal period by charging Inventory and crediting Surplus. The justification for this procedure is that the inventory shrinkage represents a temporary condition only, which should be reflected in the balance sheet at the close of the year, but that the actual loss from shrinkage cannot occur until the goods are sold—if it occurs at all. If the article is a finished one, the market price will affect it; if it is raw material and becomes part of a finished product that has no determined market price, then fluctuations in prices of raw material (unless very marked) would probably have no bearing whatsoever on the sales price. Selling prices are, as a rule, based on costs rather than on market quotations of raw materials entering into finished product; at least this is true of the vast majority of producers and manufacturers. Producers of grain products or staple foods are, of course, more or less affected by fluctuations in prices of raw materials, and current reserves for such fluctuations might well be used as a guide in price making; but the greater percentage of manufacturers must operate on the basis of costs rather than on market quotations.

The auditor should insist, therefore, that the balance sheet, which is prepared on the basis of valuations,

take cognizance of fluctuations down from cost price in inventories; but he cannot insist that the stores records be changed accordingly. The stores records should always be stated at cost so that the real costs of production may be determined; the shrinkage is bound to show up in sales made at a reduced price subsequent to inventory taking. The matter had best be handled thru the two following journal entries, the first made on the closing day of a fiscal year, the second on the first day of the succeeding fiscal period:

December 31, 1917

Profit and Loss	$........	
Inventories (or Inventory Reserve)		$........

To record shrinkage in inventories representing difference between market and cost.

January 1, 1918

Inventories (or Inventory Reserve)	$........	
Surplus		$........

To reëstablish inventories to cost prices reversing entry of previous year.

Under the above-mentioned methods the controlling accounts for stores will not be affected, the stores ledgers themselves will not be changed, and yet the true value of inventories will appear in the balance sheet at the close of the year.

INVENTORIES BY THE AUDITOR

In instances where inventories have not been taken and it becomes the auditor's duty to take the inventories or supervise their taking, very few if any risks are assumed by the auditor in giving an unqualified certificate as to inventories. In fact, one is inclined

to believe that under such conditions the auditor is placed in a very enviable position because he has something definite and tangible to work from. From the inventories taken by him he can prove back the inventories at the beginning of the period, and by the use of the two he can further prove the sales and the production.

Let us assume that the auditor himself, his staff, or men under his supervision, have taken the inventories. To prove the beginning inventory (in quantities rather than by values) the following table could be used:

	Quantities		
	Commodity A	Commodity B	Commodity C
Inventory Raw Materials at end of year (actual)	....	....	....
Add—Quantities sold (or in case of manufacturer, quantities sold, in process, or in finished inventory)	....	....	....
	....	....	....
Deduct—Quantities purchased during year	....	....	....
Inventory Raw Materials at beginning of year	....	....	....

The next step, in the case of a manufacturer, will be to prove the inventories of finished goods and goods in process at the beginning of the year. The following table can be used to prove the inventory of finished goods:

	Quantities	
	Class A	Class B
Inventory:		
Finished Goods at end of year (actual) . .	....	....
Add—Sales during year	....	....
	....	....

Deduct—Production of Finished Goods during year	....	....
Finished Goods Inventory at beginning of year	....	....

The goods in process inventory at the beginning of the year may be proved as follows in values:

Goods in Process at end of year (actual)	$........
Add—Cost of Goods Finished during year	....
	$........
Deduct—Total Production Costs during year	....
Value of Inventory in Process at beginning of year . .	$........

The following table may be used to prove the production of finished goods:

Sales of Finished Goods during year, at cost.	$........
Add—Inventory at end of year	....
	$........
Deduct—Inventory at beginning of year	....
Production	$........

Sales may be proved in quantities as follows:

Production during the year	....
Add—Inventory Finished Goods at beginning of year . .	....
	....
Deduct—Finished Goods Inventory at end of year . . .	....
Sales for year	....

THE GROSS-PROFIT TEST

Whenever an inventory looks dubious to an auditor, it has been found good policy to apply the gross-profit test. For purposes of illustration we might assume that the inventory at the beginning of the period under audit was valued at $20,000.00 and that the purchases during the year amounted to $50,000.00, making a total of $70,000.00 to be accounted for. If the sales during the year amounted to $50,000.00 and the gross profit on sales for previous years was 25 per cent of cost, then $50,000.00 would represent 125 per cent. The cost of goods sold during the year should therefore be $50,000.00 ÷ 1.25, or $40,000.00, which, when deducted from the sum of beginning inventory and purchases ($70,000.00), would leave $30,000.00 as the approximate value of the inventory at the end of the year. If the physical inventory varied a thousand or a few thousand dollars from the test figure, such a difference might be readily explained thru variations in sales prices, extraordinary fluctuations in purchase prices, etc.; but if, after providing for such unusual conditions, the inventory still varied from the test check by thousands of dollars, then a thoro investigation would be called for.

Where a proper cost system exists, the verification of inventories is much simplified. The cost department itself will have records which should closely agree with the inventories of finished goods and goods in process, and the stores ledgers, being operated on the perpetual-inventory plan, should show balances agreeing very closely with the physical inventories. In fact, the controlling accounts for Stores, Inventory in Process, and Finished Goods should practically check

with the physical inventories. By making a fairly complete examination of the stores system and the cost system, the auditor can determine quite accurately the validity of the inventories presented to him; this is especially true where the cost system is tied up with the general books of account.

CHAPTER VI

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

INVESTMENTS IN SECURITIES

Investments should always appear under a separate caption in an auditor's balance sheet. If they represent temporary investments of a company's surplus that can be converted readily into cash, the caption should follow "Current Assets." If, however, they represent partial control or more in subsidiary, affiliated, or other operating companies, their permanency would give them a place next to or immediately preceding "Fixed Assets." At any rate the auditor should comment fully in the text of his report on the items composing "Investments" and they should appear as a separate caption in the balance sheet irrespective of their nature.

All securities in the Investments Account that are in the client's office should be examined by the auditor and a complete list of them prepared. The securities out as collateral should be verified by correspondence and any in transit to the client should be checked upon their receipt and the transmitter circularized; if the transmitting agency be a branch office of the client (which office is also audited), the records of the branch should show the transmittal as prior to the closing of the branch accounts. If some of the securities were sold subsequent to closing date

covered by the auditor's certificate, the cash receipts therefor should be verified. All securities purchased subsequent to the audited period should be checked against the disbursement record.

The list of investments prepared by the auditor should yield the following information:

Description of the securities.
Date purchased.
Par value.
Number of shares or bonds and their denomination.
Rate at which purchased and total cost.
Interest or dividends received during the year.
Accrued interest on bonds (if any).
Market values.
Excess of market values over book values or the opposite.
Total issues of the companies.
Net worth of the companies where no market reports are available.
If out as collateral or as security, name of the holder and purpose of the collateral.

The list thus prepared, consisting of securities on hand, in transit, or out as collateral, etc., should be compared with the general ledger controlling accounts, and the interest and dividends received and interest accrued (if the accounts are kept on the accrual basis) must be compared with the corresponding general ledger income accounts.

Reserves should be created in all instances where the market values are appreciably less than book values, at least for balance sheet purposes. The Investment Account, however, should remain at cost and the entry creating the reserve at the end of the audited period may be reversed at the beginning of the next period

as an adjustment to Surplus. Reserves should be set up whenever the company issues a balance sheet for public or credit purposes, to provide for shrinkage in market values below cost. But why not offset shrinkage of some securities by market excess over cost of others? Because it is poor business policy to anticipate profits and excellent and conservative to provide for any possible losses; tendencies downward are, to begin with, indications of danger and possible loss. It is always wise to provide against loss, for the gains will take care of themselves if from the nature of things gains must result.

If bonds are registered, the registration agent should be circularized. All bonds must be examined to see that the coupons attached are intact and that they represent the next interest payment date. Stocks should be made out in favor of the company or, where the law prevents, in the name of the authorized trustee of the company.

The value of an investment in subsidiary or controlled corporations can generally be determined by a partial investigation of the books of such corporations. If this cannot be done, then the auditor must limit his certificate by a statement that such investments are at cost or otherwise but that their real value could not be determined since access was not had to the books of the affiliated corporations. If an auditor advises his client of a qualification of this kind to the certificate, provisions are generally made for a very thoro examination of the affiliated corporation's accounts.

Stocks purchased from brokers should be verified thru the stockbrokers' advices. If the company carries securities on margin, a certificate of the com-

pany's account should be obtained from the broker and all open trades verified. The author has found a number of instances where stocks purchased on margin were included among the investments and where the account with the stockbroker represented a credit balance far in excess of the book value of the stocks, the credit balance as a rule representing not only a liability for stocks long but profits on trades besides. Such practices are to be condemned; profits on closed trades should be transferred promptly to the Profit and Loss Account.

Mortgages held as investments should be thoroly scrutinized, and they should be supported by the insurance policies. The auditor should also see that they have been properly recorded, and that all taxes have been paid on the mortgaged property, and that there are no other liens infringing on the value of the security. The auditor should further satisfy himself that interest payments were made promptly and in accordance with the terms of the mortgage, and that the margin of security is ample; a mortgage on the property of a defunct corporation might be practically valueless or at least full recovery be doubtful. Any mortgages of this kind should be fully commented on in the auditor's report.

Sinking Funds

Sinking funds are as a rule created for specific purposes in connection with the retirement or gradual extinction of certain forms of indebtedness. Thus sinking funds may be provided for the retirement of bond or preferred stock issues or for the payment of mortgages. The auditor should always refer to

the deed of trust or contract providing for the sinking fund, in order to assure himself that all stipulations of these indentures have been complied with. The name of the trustee should be secured, and from him a certificate should be requested as to the amount on deposit and as to any interest credited thereon which may or may not be entered in the accounts of the auditor's client. It would also be advisable to have the trustee's certificate cover the question of sufficiency of deposit as per terms of the trust agreement or mortgage. Where the deposits are not with the trustee, the auditor must assume full responsibility in testing their sufficiency and should request a certificate from the depository as to amount. The sinking fund should always represent a separate deposit account, and the depositary's certificate should so indicate. The investigation should cover each and every payment into the sinking fund, with the dates indicated; these payments should all be regular and on specific dates as provided in the trust indenture. Tho the sinking fund in total on a certain date may meet the total requirements to that date, there is no positive assurance thru that fact that the terms provided by the trust indenture have been met; the fund may have been built up sporadically or at a time just prior to the audit, in which case the terms of the contract have been violated and the interest accumulation principle of sinking funds violated. In such cases the trustee would be equally culpable with the depositor.

The auditor should be able to give some constructive advice as to the proper investment of sinking funds. If the fund exists to retire the company's own bonds and these bonds bore 5 per cent interest, it would certainly be good policy for the company to invest

by purchase in its own bonds and then to cancel them; the company would earn the difference between the 5 per cent it would save and the possible 3½ to 4 per cent that it would receive on other sound investments. A company should never be satisfied to permit its sinking fund to take the form of a time deposit drawing from 2 to 3 per cent interest, and a trustee handling a fund in that manner is subject to severe criticism; there are thousands of sound securities yielding anywhere from 3½ to 5 per cent.

If the sinking fund is invested in securities, the securities themselves should be examined by the auditor and listed and their market or cash value determined. If the trustee is far removed from the client's place of business, he should provide a certificate to the auditor covering the investments, their market values, date and price of purchase, accrued interest, etc.

Sinking funds of municipalities require very special attention. The general laxity of control over the finances of a city imposes a severe test on an auditor in determining the adequacy of the provisions. The sinking fund provisions for cities should be based upon actuarial science so that the amounts actually in the funds could be checked against the tables. The auditor can give advice of very constructive nature along these lines. In certain states the laws fix the annual amounts to be paid into municipal sinking funds. It is the auditor's duty to see that the provisions of the laws are fully met.

CHAPTER VII

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Fixed Assets

Schedules should be prepared of the various fixed assets included under the following groups:

Land.
Buildings.
Machinery and Equipment.
Office Furniture and Fixtures.

LAND

Where first audits are being conducted, the deeds to lands should be carefully examined, the abstract of title inspected, and the necessary court records investigated so that assurance may be had that titles are clear and that there are no liens recorded against the property. The original cost price plus any legal or recording fees, surveying costs, etc., should represent the opening book value placed on the property, and should furnish the starting point to the auditor for a further analysis and inspection of the Land Account.

The lands of a company should be classified under the headings of productive and nonproductive; that is, lands held for sale or for other purposes, and lands actually utilized for producing income. Charges

to these properties should cover only improvements or expenditures which will produce an increase in revenue. Ordinary taxes are carrying charges covering government protection, and these should not be charged as an asset. It might be permissible to charge the tax on land to the Property Account during the period of building construction if construction work is started immediately after the acquisition of the land, because in such instances it is very evident that the land purchase was not for the purpose of acquiring land but for the purpose of erecting buildings to be used productively. In all other instances taxes should be regarded as an insurance by the state for protection and service. Special assessments, however, covering street improvements adjacent to land, sewer construction, etc., are for actual improvements and necessarily enhance land values. All other charges to the Land Account should represent improvements or additions, and the auditor should be very careful in his scrutiny of these charges so as to be sure that values have been actually increased. Charges to the account because of re-appraisal of land values cannot be approved since they anticipate a profit which cannot be realized or determined until the land is sold; they may be tolerated if the company offsets the increase in the Land Account by a reserve for an equal amount.

Many public accountants assume offhand that land does not depreciate. Land values may depreciate as well as appreciate. In fact, a location may lose its value to a manufacturer so as to force him to dispose of his land at quite a sacrifice. Again buildings used for manufacturing purposes must be sold with the site; the buildings may be entirely adequate for manufacturing purposes and would be suitable if properly

located. The loss engendered by a condition of this kind certainly represents a depreciation of land—at least for manufacturing purposes—and not of buildings. Irrespective of suitability of site there may be depreciation of land values due to numerous other causes, even though a plant may advantageously continue its operations on the land. This point is emphasized to counteract the tendency to write up land values because of presumed increases in sectional values; such increases may be very evident to the man who wants to buy or to the lot seller, but they may not be so well defined to a man who wants to sell with buildings or who wishes to remove to a more advantageous manufacturing site. The location of a piece of land for a special purpose or facility is after all the gist of the whole matter.

LAND COMPANIES

The land account of a land company must be very carefully analyzed. In such a concern the initial administrative and selling expenses are necessarily large. None of these expenses is chargeable to the Land Account. Advertising and selling expenses may be set up as deferred charges until the sales begin and some of the administrative expense may be deferred, but under no condition are these items chargeable to the Property Account itself. Only actual improvements, such as sidewalk construction and street paving, can be capitalized.

The original purchase of the land should be charged to an Unimproved Real Estate Account. As sections are laid out into lots, the Unimproved Real Estate Account should be credited at cost and a Lot Ledger

Account debited. The lot ledger itself will contain the detailed descriptions and values of the individual lots. If buildings are put up, the Lot Ledger Account is charged and the improvement entered under the individual lot in the subsidiary lot ledger. When the building is completed, the entire improved lot is taken out of the lot ledger and transferred to an improved real estate ledger.

There are, therefore, three distinct ledgers which the auditor must examine, viz., the unimproved real estate, the lot, and the improved real estate ledgers. It is important to gain assurance that all the amounts carried in these ledgers are at cost and that they represent actual improvements. On the basis of these ledgers depends the construction of the various Cost of Sales Accounts. When lots or improved parcels are sold, the buyer should be charged and Sales credited; the lots sold will be credited and cost of sales charged. All selling and administrative expenses should then be charged against the gross profits represented by the difference between the Sales and the Cost of Sales Accounts.

The unsold lots at the end of the period should be compared with the company's maps and all customers' balances for lots sold should be verified by correspondence. Unpaid balances on tracts purchased should be verified in the same manner and the contracts for both the purchase of tracts and the sale of lots thoroly examined. Very often payments on purchase price are proportioned to the receipts from sales.

BUILDINGS

In examining the Building Account the auditor should at once make a clear distinction, in schedule form,

of buildings used productively (or in the business) and of buildings used for other purposes or not in use at all. This is valuable not only for purposes of analysis but also to indicate the amount of capital tied up in nonproductive assets; it should be remembered that the upkeep, depreciation, and carrying charges of idle plant must be considered in price making and is thereby an unjust burden on production or trading. Investment in plant should bear a proportional and logical relation to production or volume of business so that "unearned burden" may be at a minimum and so that all plant be kept as close to peak production as possible.

The controlling account for buildings should agree with the property ledger (if one be kept) and the balances at the end and the beginning of the period should tally with the subsidiary ledger balances. All additions made during the period must be examined and proper authorizations secured for the expenditures. If construction was carried on by contractors, the contracts should be examined. If the construction work was performed by the client's own labor, the pay roll records must be inspected and the material requisitions called for. Additions should be entered on the books at cost, and no profit should be taken into the asset account for construction work done by the client. If a large portion of the labor force was employed in construction work and withdrawn from regular production departments, a portion of factory overhead may be included in the construction charge, but only when the regular productive factors of the company or client were utilized by the construction labor. Where this is not the case and only odd hours of labor are given over to construction work, it is improbable that

the factory overhead would be appreciably affected by such sporadic efforts, and it would be deemed a violation of conservatism to include a portion of factory overhead as a construction cost.

Care must at all times be exercised by the auditor with reference to charges to Building Accounts. These charges must represent real additions or changes which will increase earning capacity; they must not be replacements or repairs. Any construction which merely reëstablishes the original plant or portions thereof is chargeable to Depreciation Reserve Account and not to Property Account.

In analyzing the Building Account the auditor should prepare schedules giving the following details:

1. Original cost or purchase price (in the case of a first audit), or balance at beginning of period (substantiated by proper invoices, deeds, cost records, or purchase contracts).
2. Additions (as evidenced by properly authorized vouchers, contracts, or cost records).
3. Total values at cost.
4. Amounts of depreciation provided and rates of depreciation.
5. Values on which depreciation is based.
6. Depreciated values.

It is proper practice to figure depreciation during a year on balances at the beginning of the year; additions made during a year to buildings should not be depreciated. Tho this rule is general, it is not always applicable. If an entirely new structure were completed within the year and became an operating factor, it would certainly be very poor cost accounting not to figure depreciation into operations. But

on the other hand if only minor additions were made to buildings, it would be very troublesome to adjust depreciation schedules and rates every time such additions were made. The treatment, therefore, depends entirely upon the magnitude and nature of the property additions.

Depreciation reserves must be studied by the auditor carefully, not only as to sufficiency but as to mode of construction. Depreciation does not consist of a portion of profits set aside at the end of the year; depreciation is a current, everyday operating expense and as such must be currently included in costs. This is just as true of building depreciation as it is of the depreciation of the more direct operating factors. There are fairly well established depreciation rates for buildings of different types of construction. Various state commissions have given careful study to these matters and construction engineers have delved deeply into the subject. The rates should of course be based on the estimated life of the building, with due regard for the possibility of obsolescence.

Where buildings have been erected on leased premises, it will be necessary to write off the entire value of the buildings during the term of the lease unless some provision has been made with the lessor as to partial compensation. The auditor should satisfy himself that the amounts written off are ample and that provision for the retirement of the properties is made after approved standards; in fact, the annuity method is the best and, if not already in use, might well be recommended by the auditor.

In connection with the analysis of the Building Account, the auditor should call for all insurance policies, in order, first, to determine the adequacy of the

insurance; second, to assure himself that the policies are in the company's name; and third, to serve as an additional proof that the properties are not hypothecated.

CHAPTER VIII

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Fixed Assets (Cont'd)

MACHINERY AND EQUIPMENT

Considerably more care must be exercised in analyzing the Machinery and Equipment Accounts than the Building Account. The buildings as a rule are few in number, their construction is easily determined, and their life of utility readily estimated. Not so with machinery. A machine may last twenty years in one shop, whereas the same type of machine may in another be ready for the scrap pile in five years.

The use to which machinery is put, the time it is used, the amounts expended for repairs and replacement of parts—all these elements must receive consideration by a careful auditor; in fact, a knowledge of shop conditions is almost essential before sound conclusions can be drawn with reference to the Machinery Account.

In many companies detailed records are kept showing the cost, date of purchase, factory number, type, maker, and description of every machine. These records, as a rule, are not tied up with the general books, but they are of very great value to the auditor as a check against the amounts set up in the controlling account and for purposes of verifying depreciation.

In stating depreciation it should be remembered that every machine should be treated as a unit. A flat rate on all machinery is entirely inadequate and unjust; high speed machines may last five years, whereas a low geared device may remain in effective service for twenty years or more.

Appraisal companies, altho sometimes very unreliable in their estimates of values, have contributed considerable by their detailed records or lists of machinery furnished with each appraisal report, and a company may conveniently use the appraisal sheets as subsidiary machinery ledgers, making, of course, whatever adjustments are necessary to bring the values down to real depreciated values. Columns should be provided on these appraisal sheets for depreciation, repairs, and replacement of parts which will give the necessary data for the amounts to be credited to Depreciation Reserve Account, the information as to annual repair cost, and the sum to be charged against Depreciation Reserve respectively.

The auditor must be on guard constantly against the commission of two common errors, viz., the error of charging repairs to Capital Account, and the error of charging replacements to either Capital Account or Expense. Repairs cannot cancel depreciation any more than medical attention during life can give life everlasting. Repairs must always be charged as an operating cost, and replacements and renewals must be charged against the reserve for depreciation since they tend to reëstablish the equipment to its original status, thereby restoring the capital intact.

The adequacy of a reserve for depreciation for machinery must therefore be gauged by the sum of the accrued depreciation on all machines taken indi-

vidually. It is needless to say that an examination of the Machinery Account along these lines is in many instances an enormous task, but it is the only scientific method, especially in a first audit; the work, of course, is reduced where individual machine records are kept. These records should be inspected thoroly and the depreciated totals should agree with the general ledger Machinery Account after deduction therefrom of the reserve for depreciation.

The importance of providing proper and varying rates of depreciation for the different properties included in the Machinery and Equipment Accounts cannot be overemphasized. Nor can the use of a subsidiary machinery and equipment ledger be too strongly recommended; no proper data as to depreciation can be maintained without such a ledger. No business man would be guilty of throwing all his accounts receivable into one account and without name or place. The values tied up in machinery and equipment are as a rule far in excess of the accounts receivable: business consists entirely of conversion and exchange of values; therefore why not put values on an equal basis for accounting purposes? Cash invested in machinery should have the same attention as cash in bank; both are susceptible to changes and shrinkages and both are convertible, in fact are daily being converted, into values of different character. The depreciation of the machine becomes part of the value of the finished commodity, which in turn becomes an account receivable convertible into cash. Depreciation thus actually is converted into cash; it should therefore receive as much attention as the Cash Account. It is as important currently, since reflected in every sale and cash receipt,

and it is of even greater importance ultimately, since thru its inclusion in the selling price, provision has been made for the retention of capital investment and for the replenishment of capital when the machinery is worn out.

Capital invested in fixed assets is a deferred charge to future operations. It is like prepaid insurance: the insurance premium must be written off into operations currently during the life of the policy; the value of the investment must be written off during the life of the various pieces of property. Both are recoverable thru sales since both are included in the cost of production, the result being that the insurance premium and the exhaustion of the capital (depreciation) are both repaid in cash. In taking this view of capital invested in fixed assets, one can readily appreciate the necessity and logic of providing fully for the exhaustion, thru use, of plant and equipment; unless provision be made currently for the disappearance of fixed assets into production and consequently into selling price, a manufacturer will soon find himself in the serious dilemma of possessing no capital at all. When confronted with this situation he will no longer be able to restore his capital thru sales because the enormous prices he would have to charge would put him out of business entirely. The auditor cannot therefore insist too strongly that adequate provisions be made for depreciation and that depreciation be considered currently in order that it may at all times be reflected in the sales price and be recoverable thru it.

In examining the Machinery and Equipment Accounts the auditor must assure himself that no obsolete

machines are included. The detail machinery ledger should show readily the machines in use, those not in use, and those ready to be scrapped.

Small Tools

Small tools for either hand or machine use, dies, jigs, and templates depreciate very rapidly indeed, and the provision must therefore be very liberal. In fact, it is advisable to set up a normal inventory for this equipment which will closely represent the total investment in these devices, currently charging all replacements and additions direct to expense accounts. This practice would not be feasible, however, at times when extraordinary outlays for tools, etc., would have to be made. In most concerns, however, the investment in equipment of this character would be fairly constant, so that all replacements might fairly be charged to Expense. Quite a number of printers are employing this method in connection with their Type Investment Accounts. The inventory of tools must, of course, be fully verified, irrespective of how it is carried in the books.

Special tools made in connection with job work are generally charged to customers, altho they may be held by the manufacturer. The auditor should be on guard against the inclusion of these in the manufacturer's inventory. These devices sometimes run up into large sums of money.

Drawings and patterns should also be depreciated within a short period. Designs change constantly and drawings and patterns are worthless the moment the design changes. It is of the utmost importance to inspect accounts of this nature thoroly; there is always

a tendency on the part of executives to overestimate the values invested in assets of this character.

OFFICE FURNITURE AND FIXTURES

The residual value of assets of this nature is an uncertain item and the amounts that may be recovered, as a rule, are small. However, as in the case of all assets in a going concern, they should be carried at their operating value. Many companies carry their furniture and fixtures at the nominal value of one dollar. This may be appropriate where the investment is light or where the furniture and fixtures are of a special nature. There is, however, little justification in carrying these assets at less than scrap value where the investment is quite heavy. The depreciation in the latter case should be liberal and the account reduced to scrap value in five years or less. The frequent changes in this kind of equipment and the damage caused by shifting entail heavy shrinkage in value. The construction of the furniture should guide the auditor in passing on the depreciation factor; steel furniture, if the styles and purposes for which the devices are used do not change, might easily last twenty years, whereas wooden furniture, while it may last, would probably be so marred and damaged after several years' use that its serviceability would be questionable. After all the whole subject resolves itself into a matter of judgment, with the caution to the auditor that the provision for depreciation be liberal.

MISCELLANEOUS

Horses in heavy service give out rapidly and should be depreciated at about 25 per cent of cost annually.

Wagons have so generally gone out of use for delivery purposes that one hesitates to recommend a rate of depreciation. The depreciation normally would be between 10 per cent and 15 per cent per year, but the use of automobiles for delivery purposes is becoming so general that wagons are almost obsolete, at least for the larger percentage of industries and businesses. The depreciation of automobiles depends on their use. For light delivery a rate of from 15 to 20 per cent should be ample; heavy continued service might call for from 20 to 30 per cent. These rates ought to be ample because so many parts of an automobile can be replaced; there should be little question, therefore, about the approximate life of an automobile and it would appear that for delivery purposes one might reasonably expect an effective use for from four to five years. The auditor should in all cases be guided by the experiences of the companies he has audited. Automobiles are in such common use that the information as to their life of effectiveness is quite general and fairly well established.

It would be well for the auditor to equip himself with the depreciation tables prepared by the United States Government, by the various public service commissions of the states, and by the large firms of industrial engineers and appraisers. Rates must vary according to uses of machinery and equipment. The tables above referred to cover quite specifically various types of buildings, machinery, and equipment, under both heavy and light service, and will be found of interest and value.

CHAPTER IX

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Deferred Charges

In preparing his balance sheet the auditor is sometimes in a quandary as to just what items should be included under the caption "Deferred Charges." It is suggested that they be limited to deferred expenses and that all items representing tangible inventories be included under the caption of "Inventories." The items of office stationery and supplies, catalogs, and all other supplies inventoriable by actual count, should be included as separate headings under "Inventories." In most well-organized offices these accounts would be operated on a perpetual inventory basis and they should therefore be treated as inventories in the balance sheet.

"Deferred Charges" should therefore be limited to accounts representing expenses prepaid and should not include purchases of articles physically inventoriable. They should include accounts of the following nature:

Prepaid Insurance.
Prepaid Interest.
Organization and Promotion Expenses.
Prepaid Advertising (not including advertising supplies).
Prepaid Selling Expenses.
Prepaid Taxes.
Bond Discount.
Prepaid Rents.

Miscellaneous Deferred Charges (Prepaid Memberships, Dues, Licenses, Extraordinary Repairs and Maintenance charges.

PREPAID INSURANCE

The auditor should recommend that insurance premiums be charged to a Prepaid Insurance Account and that one-twelfth thereof (if year policies) be charged to Insurance Expense each month and the Prepaid Insurance Account credited. An insurance register may in some instances be recommended in which the following details will appear:

Policy number.
Name of company.
Date of policy.
Date of expiration.
Nature of insurance.
Amount of insurance.
Amount of premium.
Twelve columns covering the months of a calendar year.

The important feature of an insurance register in the form above proposed is the section divided into the twelve columns for the calendar months. In these columns will be placed the monthly fraction of the prepaid insurance premium so that the sum total of each column will at once represent the amount chargeable each month to Insurance Expense and will, of course, at the same time be the amount by which the inventory of Prepaid Insurance will be relieved or credited.

If an insurance register as outlined be kept, the auditor should have no difficulty whatever in verifying the Unexpired or Prepaid Insurance Account. If no

register is in force, he will have to determine the prepaid balance by listing all the policies and their unexpired portions. Wherever practicable, the auditor should recommend that all insurance be taken out on one specific date and preferably on the first day of each fiscal year. In the latter case the matter of distributing the expense to the months would be simple and no division of the individual premiums would be necessary; again, all insurance would expire with the year so that the Prepaid Insurance Account would be entirely eliminated at the end of each year. Any additional insurance which might, for one reason or another, have to be written during the year could easily be rewritten at the beginning of the next year to conform with the general plan. Where the insurance is extraordinarily heavy, the plan as outlined might not be feasible because of the large premiums all payable at one time; then again, if universally practiced, the entire business of insurance companies would fall into one month and it would probably be physically impossible to issue the policies. In individual cases, however, where the amount of insurance carried is moderate, the plan should work admirably and save the bookkeeper as well as the auditor considerable time in attaining their respective objects. It might be suggested as always feasible and where the annual plan could not be followed, to have equal portions of the insurance expire quarterly or monthly, thereby giving regularity to the Insurance Account and simplifying the accounting procedure.

Coincident with the examination of the Prepaid Insurance Account, the auditor should carefully inspect the policies; he should see that they are made out in the client's name, he should examine the co-insurance

clause or any other restrictions, and he should be always on the watch for the contingent liability clause on the policies of mutual or assessment companies. As a rule, there is a contingent liability of five times the premium paid on these policies. He should also examine generally into the adequacy of the amount of insurance carried and into the policies written with a co-insurance clause.

PREPAID INTEREST

Thirty-day discounts, unless coming near the end of the last month of a fiscal year, need not be included in the Prepaid Interest Account. But if the auditor should find a $100,000.00 note discounted for thirty days at 4 per cent on December 20 (assuming the fiscal year ended with the calendar year), he should certainly see to it that only one-third of the discount be charged during the year and the remainder set up as Prepaid Interest to be written off during the following January. We might recommend that all thirty-day discounts not coming on the first five days of a month, if of any appreciable size, should be charged to Prepaid Interest Account rather than to Interest Expense, so that each month may be burdened with its proper share of expense.

Any discounts for periods of over thirty days (unless they be too small for consideration) should without any question be charged to Prepaid Interest Account and the expense properly allocated between months in proportion to the number of days covered by the term of the loan during these months. Thus a ninety-day loan of $1,000.00 discounted January 15 at 6 per

cent should provide first for a charge of $15.00 to Prepaid Interest Account, and roughly Interest Expense should be charged and Prepaid Interest credited in the following manner:

1/6 of $15.00, or $2.50	in January (1/2 month)
1/3 of $15.00, or $5.00	in February (1 month)
1/3 of $15.00, or $5.00	in March (1 month)
1/6 of $15.00, or $2.50	in April (1/2 month)
$15.00	Total discount distributed

On large loans the discount should be worked down to a day basis and each month charged on the basis of actual days in the month rather than on a thirty-day basis.

Where notes receivable are discounted, it is hardly ever desirable to set up the amount of discount as a deferred charge, because in the first place the notes may become liabilities and secondly because they generally bear interest equivalent to the discounts or in excess thereof. At the end of the year, however, if the notes receivable discounted are numerous and the discount heavy, provision should be made for the prepaid portion and offset against any interest accrued on these notes which will be recoverable when the notes are paid by the makers.

Our concern here is chiefly with the regular notes of the client discounted as loans. These discounts the auditor should always (if they are for a period in excess of thirty days or if in large amounts) set up in the Prepaid Interest Account so that the period under audit and the period to follow may each bear its proportion of interest expense. The auditor must

always be cautioned to make adjustments of this kind for both the end and the beginning of the period he is reporting on. If he sets up an account for Prepaid Interest at the end without adjusting the accounts at the beginning, the interest expense for the period will be misstated; the adjustment at the beginning of the period will affect the Surplus and current profit and loss accounts, whereas the adjustment at the end will affect merely the current year's Profit and Loss Account and will create a deferred charge temporarily viewed as an asset account for balance sheet purposes. This whole subject may be illustrated by the following problem: Company A's books show charges during the year of $3,000.00 for loans discounted. At the end of the year the auditor finds that $300.00 of this amount represents prepaid interest on loans which will not mature until the subsequent year. We can readily see that the following entry must be made:

Prepaid Interest	$300.00	
Discount		$300.00
To set up interest prepaid chargeable to next year's expense since some notes do not mature until next year.		

This entry would reduce the Discount Account to $2,700.00, but is that all that is chargeable to the current year? Let us suppose that the auditor's investigation shows that no provision was made for prepaid interest at the beginning of the year and that all the discounts were included as expense during the year prior; if it were found further that the prepaid interest at the beginning of the year (all charged to prior year's operations) amounted to $800.00, the following entry would then have to be made:

Discounts	$800.00	
Surplus		$800.00

To charge expenses of current year with portion of discounts on loans discounted in prior year, all the discount having been charged to prior year's expense.

It is readily seen that if the auditor had been content to adjust the Discount Account for the end of the current year only, the discounts charged would have amounted to $2,700.00, whereas the actual discounts applicable to the current year amounted to $3,500.00. Had no adjustment been made for the beginning of the year, both the current year's accounts would have been wrong as well as the Surplus Account or the prior year's expenses. Therefore in dealing with all prepaid or accrued items when these are not considered in the books of account, adjustments must be made at both the end and the beginning of the period audited so that current operations may be properly stated and the Surplus Account at the beginning corrected.

ORGANIZATION AND PROMOTION EXPENSES

If there are merely nominal expenses in connection with organizing a business or a corporation, no justification can be found for setting these up as deferred charges to future operations. If, however, it can be demonstrated that the expenses of this character were unusual in amount and that the expenses were of such nature that future operations would benefit thereby, say because of excellency of organization, then it is permissible to spread such expenses over a period of from three to five years. Again, if these expenses were extraordinarily heavy, the effect of charging them all

against the first year's operations would distort the Profit and Loss Account.

But let us assume that the organization expenses are being spread over five years in order not to distort the operations of the first or any one year, and we find that the company has during the first year made a net profit equal to the deferred charge for organization expenses for the next four years: could we justify the payment of a dividend out of the first year's net earnings? Legally a dividend could be declared, but one would be inclined to criticize the directors for distributing profits so long as such an intangible and positively valueless asset as organization expense remained on the books.

Would the writing off of organization expense after the first year necessarily distort the Profit and Loss Account? If the profit and loss statement were properly prepared, no distortion would appear, because the net profits from operation could be clearly shown and the organization expense could be deducted as an extraordinary charge. A true comparison of operations could therefore still be obtained between the first year and succeeding years. The distortion, if any, would appear in the balance sheet and then only if the inclusion of organization expense would result in a deficit and the deficit were shown as a total. One is inclined to believe that a wise and conservative banker would look with more favor on a balance sheet showing a net profit from operations and a deduction therefrom for the entire amount of organization expense, altho the result might be a deficit, than on a balance sheet which carried the organization expense as a deferred charge. The net worth might be expressed as follows:

Capital Stock		$100,000.00
Add—Net Profits from operations for the year	$20,000.00	
Deduct—Organization Expense	25,000.00	5,000.00
Net Worth		$95,000.00

If, in the same case, organization expense were written off at the rate of $5,000.00 per year, the net worth would show up as $115,000.00, which would hardly reflect the real financial strength or position of the company, especially in view of the fact that the next year might not yield a profit. We are therefore rather inclined to believe that from the standpoint of conservatism, organization expenses should be charged off the first year and in such a manner that the results from operations would not be affected. Only in exceptional cases, then, where the organization expenses actually affect future operations or where the process of organization is long drawn out, is found a real justification in deferring charges of this nature.

It is the auditor's duty to impress upon the executive of any business that his balance sheet should be composed of assets representing real values and of only such deferred charges as truly benefit or affect future operations. An auditor certifies not only to the balance sheet as a statement; he certifies to the values of the items included in the balance sheet. He must be ready to state that, in his opinion, the balance sheet truly sets forth the financial position of his client. No unqualified certificate can be given to a balance sheet containing numerous or large intangible assets, or deferred charges. The business man should realize that the value of an auditor's certificate

is limited by its qualifications, and that a true statement of financial position even though at times unfavorable carries more weight with creditors and bankers than one filled with intangible items; this is especially true if the statement shows that results from operations are favorable and that financial position although somewhat less favorable is the result of a commendable and conservative policy to reduce assets to actual and true values.

In analyzing the Organization Expense Account the auditor must make sure that no items included therein represent operating expenses. Cases are common where many charges have been made to this account for regular operating expenses in order that a good showing could be made at the end of the first year or to foster additional sales of stock or securities. In the case of external promotion, the auditor should call for the contract with the promoter in order to assure himself that the company has not paid any of the expenses which the promoter himself was to pay—in fact, that all the stipulations of the contract were properly complied with and that there is no further liability on the part of the company to the promoter. Some promotion contracts provide a share of the annual profits to the promotor for a period of years; such a liability and its extent must be considered and thoroly examined by the auditor.

CHAPTER X

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Deferred Charges (Cont'd)

PREPAID ADVERTISING

Advertising supplies and materials for distribution, whether they be forms used by the advertising department or whether they be selling literature or catalogs, should be treated as inventories. Advertising expense should be charged according to quantities used or mailed each month and the Inventory Account credited. Any obsolete material should be entirely charged off when obsolescence is established. There is no more reason for treating advertising supplies or literature under the caption of "Deferred Charges" than there is for placing raw materials for manufacture under such a heading. The benefit from advertising supplies and literature comes thru use, practically in the same manner that materials for manufacture obtain value and produce revenue—by being put to use thru production. In a going concern all inventories have the same use value; they should, however, be properly classified in the balance sheet.

The auditor will find, however, that the Prepaid Advertising Account will include items which are not inventories of advertising supplies but actual expenses covering services, publicity campaigns, dis-

tribution of samples, traveling, and numerous other expenditures which are being deferred because their benefits are to accrue at a future time. The greatest care must be exercised by the auditor in inspecting this account; sometimes when an audit is made at a time considerably beyond the date to be covered by the certificate, the results from the expenditures deferred can be fairly well determined so that a much better estimate of the deferred values can be formulated.

Current newspaper and magazine advertising cannot be considered as a deferred charge. However, a special campaign conducted by a firm or through an advertising agency would entail heavy expenditures, the results of which could not possibly become evident until some future date; expenses of this nature may very justly be deferred and subsequently charged against the revenue they are to produce. The auditor should recommend, however, that deferred expenses of this nature be written into operations as quickly as possible, since they are at best very elusive and uncertain assets.

PREPAID SELLING EXPENSES

In quite a number of industries the great bulk of expenses precedes by a considerable period the delivery of the product. This condition exists wherever production or sales are seasonal, and it is quite justly felt that the period of deliveries or sales should be burdened with the selling expenses producing the sales. If expenses of this kind are deferred at the end of any fiscal period, the auditor must make sure that a similar procedure was followed at the beginning of

the period, so that the selling expenses included in the period may be correctly stated.

A number of points must be considered well in passing judgment on the validity of treating a portion of selling expense as a deferred charge. These may be tabulated in question form as follows:

1. Was all the deferred selling expense incurred to secure orders for future delivery, or was part of it incident to securing current orders?
2. How many of the orders will be cancelled?
3. How much of the expense was really productive?

It is somewhat difficult to divide a salesman's time and expense between efforts expended to secure orders for immediate delivery and orders for future delivery. Again, the orders for future delivery may be incidental to his regular activities of securing current business, especially if, for promotional and publicity purposes, he is kept on the road constantly. Probably the relative volumes of current and future orders obtained is the best method for distributing the expense. But can the entire portion so determined and so applicable to future deliveries be deferred? May not some of the orders be valueless in that they may be cancelled? To answer this question the auditor should determine the percentage of cancellations to orders booked for a period of years and he should deduct that percentage, if it has not already been done, from the portion of selling expense deferred.

Selling expenses, other than for traveling, if incurred in connection with obtaining orders for future delivery, may legitimately be deferred. Here again, however, we are confronted with the possibility that these expenses may or may not be productive, as only

the results at some future time can give definite information on this subject.

Where sales are fairly normal from year to year and no extraordinary selling campaigns are inaugurated, the auditor should discourage the practice of deferring selling expenses; in such instances the expenditures would run on a fairly uniform basis and much of the needless work of proration between periods could be eliminated.

Whatever expenses are deferred should be charged off as deliveries are made. This implies, of course, considerable statistical work, in that the deliveries must be checked off against the orders previously taken for future delivery and the deferred expenses credited, in proportion as deliveries are made. The sales manager should be held responsible for furnishing these statistics because the information yielded by them is of considerable value to him and will verify or disprove the established averages for cancellations; they will further prove to him the effectiveness of the selling expense outlays for special campaigns thru the mail orders he receives in consequence of such campaigns.

The auditor must again be cautioned to view Deferred Selling Expense with a highly critical eye; its value in a statement of assets is a very dubious one and would carry practically no weight with a banker, creditor, or even stockholder unless perfectly established as entirely valid. The auditor's report should contain a very concise résumé of this deferred item so that nothing would be left to the imagination. Items of this character have no place in the balance sheet unless established as an asset beyond the slightest possibility of doubt.

PREPAID TAXES

As a rule, taxes are assessed according to the calendar year and are payable some time between January and April of the following year. That being true, we rarely encounter a condition where taxes are paid in advance. Special taxes, however, similar to licenses, are generally paid in advance; whenever such a condition is encountered, the auditor must see that the expenditure has been properly proportioned and that the amount deferred is correct. He should naturally inspect the tax collector's receipt and verify therefrom the period covered.

It is our impression that in a number of states property taxes are payable in advance (or at least partly so) when the fiscal year of a company and calendar year coincide. In such instances the auditor must apply the same process of verification for the deferred portion recommended above.

BOND DISCOUNT

When bonds are sold for less than par or at a discount, it is entirely legitimate to write off the discount during the life of the bonds, since it is presumed that the whole period will benefit by this mode of financing. The usual custom is to write off the discount in equal annual portions. However, if the bonds are retired annually or partially at various times before maturity of the last series, the bond discount must be written off in proportion to the retirement provisions. The auditor must examine the amortization provisions carefully and must adjust the balance sheet so that the correct status of the account

may be reflected. If, for example, a company issues $100,000.00 of first-mortgage 5 per cent bonds to be retired at the rate of $10,000.00 per year and these bonds are sold at 90, it would certainly be incorrect to write off $1,000.00 each year, especially in view of the fact that the company after the first year has the benefit of only a portion of the funds provided. The discount would in this case be charged off in proportion to retirement as follows:

	Use of Capital	Fractional Portion of $10,000.00 Bond Discount To Be Written Off	Amount of Bond Discount To Be Written Off
First year	$100,000.00	10/55	$1,818.19*
Second year	90,000.00	9/55	1,636.36
Third year	80,000.00	8/55	1,454.54
Fourth year	70,000.00	7/55	1,272.73
Fifth year	60,000.00	6/55	1,090.91
Sixth year	50,000.00	5/55	909.09
Seventh year	40,000.00	4/55	727.27
Eighth year	30,000.00	3/55	545.45
Ninth year	20,000.00	2/55	363.64
Tenth year	10,000.00	1/55	181.82
	$550,000.00	55/55	$10,000.00

* Increased arbitrarily by one cent to take up the odd cent necessary to produce an even $10,000.00.

Discount on bonds really indicates a corporation's credit rate of interest or its rate of borrowing power, and is in reality, therefore, an additional interest charge. By writing off the discount annually provision is really made for the effective interest rate, and the charge should be to Bond Interest Account rather than to Profit and Loss; wherever possible the charge should be made monthly for one-twelfth of each year's

portion, in line with a general recommendation that monthly statements of operations be had in every business.

Every auditor would do well to become familiar with actuarial science and with investment accounting so that he will be fully equipped to deal with any complexities in connection with the amortization of bond discount or bond premium and sinking fund requirements.[1]

PREPAID RENTS

This item of deferred charges can be dismissed with a few words. It is a legitimately deferred expense and must be written off during the period or periods it covers. The auditor must be sure that the entire rent charge for the period audited is properly accounted for, and that therefore the account at the beginning of the period was also adjusted if such an account existed at that time.

MISCELLANEOUS DEFERRED CHARGES

Association and club memberships and dues in business organizations paid in advance (if in sufficiently large amounts) may legitimately be set up as deferred charges. The same is true of licenses. Liquor licenses especially should be charged as deferred expenses and written off monthly. Some breweries pay the saloon keeper's licenses and the license account is a large one; thus in order to reflect operating costs truly, this must be properly written off month by month. It is the auditor's duty to inspect such accounts thoroly.

[1] Sprague's *The Accountancy of Investment* will be found very useful.

Sometimes extraordinary charges for repairs and maintenance of buildings or machinery will appear among the deferred charges. Such inclusion is hardly legitimate because the just suspicion is at once aroused that the client has not made ample provision for depreciation and that he has not kept his properties in good repair during past periods of operation. If the extraordinary repair or replacement represents a real increase in the earning power, the charge may be capitalized in full or in part. If, however, the charge represents the failure to provide for proper repairs in the past, it should not only not be capitalized but it should not be set up as a deferred charge; such an expense should be charged to Surplus Account so as to adjust the results from past operations which really put the property in bad order. The repairs should have been made during the past and a present or future period should not be penalized because of a past deficiency.

If extraordinary replacements are due to the element of obsolescence, which cannot always be foreseen, there may be some justification in deferring the charges of installation or of actually setting up some of the replacement as a capital charge, especially if the value of the replacement is in excess of the obsolete factor and will be productive of larger revenue. The obsolescence factor represented by the residual value of the equipment scrapped should, however, be charged against the reserve for depreciation, or in part to Surplus Account if the reserve did not provide for obsolescence.[1] The expense in connection with install-

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[1] A more complete discussion of obsolescence will be found on pages 163-4.

ing a new device which is supplanting an obsolete factor might be regarded as an extraordinary charge and therefore deferred, or if a legitimate expense for installation, it may be capitalized.

CHAPTER XI

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Intangible Assets

There are a number of asset accounts found on representative balance sheets which have no real value except for the concern itself, and then only as long as the concern is a going one or in the event of certain contingencies. Such accounts are the Goodwill, Patents, Trade Marks, Copyrights, etc.

GOODWILL

Goodwill represents that value to a business by which it is able to attract trade, keep it, and increase it. It fluctuates, therefore, constantly with a business concern's ability to hold and to increase its trade. To a company originally organized without an acquisition of goodwill by purchase, it has no book value and should not appear as an asset. Whenever that company is ready to sell out, however, goodwill immediately becomes a tangible asset because actual cash or the equivalent can be obtained for it. It then represents the earning power of the company, its power to make profits consistently, which again is related to its established trade and standing as a business house. Coupled with all these elements, goodwill embraces the values contained in trade names of commodities and the reputation for excellency of product.

These values, intangible and not expressed on the company's balance sheet, are all factors which established the power or ability to make consistent profits, so that the measure of goodwill is really profit-making ability, extended over a sufficient number of years so as to leave no doubt of the company's earning ability. Goodwill therefore becames a realizable asset to a company only when it is ready to sell out; after sale, it becomes an intangible asset to the buyer who, however, has a right to carry it in his balance sheet, since to him it is an actual purchase, by cash or the equivalent, of profit making power. When goodwill is purchased, the acquisition represents the condensed managerial ability of a successful concern, the entire essence of that concern's business getting ability, and its business reputation among its customers. How well this can be used by the purchaser is the measure of its value to him.

United States Treasury decisions given in connection with the Federal Income Tax will not permit any depreciation of the Goodwill Account. This is in harmony with the accountant's attitude that goodwill cannot be a charge to operations. There is in reality no justification in closing out the account. It in no way affects operations; it is an intangible asset, to be sure, but it has been paid for in cash or an equivalent; it should be carried on the books at cost and no tampering with the account should be tolerated. We have come in contact with a number of cases where the Goodwill Account represented, in addition to cost, the accumulated losses resulting from several years of operations.

To charge off goodwill would indicate that it is used up in business operations; this is untrue. If

it were so written off, a secret reserve would be developed. There might be a strong inclination to write it off year by year if profits were unusually high, but high profits would be the strongest argument for the retention of the account intact. It would seem, therefore, that viewed from all angles, a Goodwill Account should represent actual cost and that it should be retained on the books intact, for it is not susceptible to depreciation or obsolescence and is not consumed in business operations. The auditor must be certain, however, that the account includes only the purchase price and that the acquisition was regular.

Valuation of Goodwill

The most important thing about goodwill is its determination. Shall it represent the average annual net profits for two years, or for five years, or shall it be even larger? It will be readily admitted that the first step in computing goodwill is the determination of the net earnings of a business; a usual second step is to deduct therefrom the interest on capital invested and the value of managerial or owners' services; the remainder is the amount to be multiplied by the number of years agreed upon to fix the Goodwill Account.

The determination of goodwill is dependent upon two factors—first, the number of years in business, and second, the type of business. An established monopoly may secure from ten to fifteen or more times its average annual profits, whereas a common valuation of goodwill for other non-monopolistic enterprises is only twice its average net profits for

one year. For manufacturing industries, in existence for a period of ten years or so, four or five times the average net profits for the past four or five years is often used. The same is true of a retail or a wholesale trading concern. Again, the closer we come to monopoly in any business, the larger becomes the multiple. In most instances, however, it is customary to deduct from 5 to 7 per cent for capital investment and for the value of managerial services.

Whenever an auditor is employed to obtain a valuation of goodwill, he must be sure that the net profit figure actually represents net profit. He must assure himself that proper provisions have been made for depreciation, that all operating expenses have been taken into account, and that no items are carried on the balance sheet as assets which are wholly or partly expenses and which should have been closed into past operations. He must also satisfy himself that none of the assets is obsolete and that all accrued assets and liabilities have been included in the accounts. Unless a complete examination along these lines is made, there is the danger that profits will be incorrectly stated.

The amount paid for goodwill should, as a rule, have no bearing on the purchase of the other assets of a concern, altho if the profits are properly stated and there has been no inflation of fixed assets thru Surplus Account, the balance sheet at the time of sale would reflect going values which the buyer would probably insist on for fixing the purchase price. It often occurs, however, that when a company sells out, appraised values (based on reproductive costs less accrued depreciation) rather than depreciated original cost values, are demanded by the

seller. There is, of course, no room for criticism if the sale be made on that basis and the buyer is willing to pay a price equivalent to present cost. To the company selling, the excess obtained over depreciated book values may be accepted as a profit, and the buyer may legitimately include the excess as part of the value of fixed assets acquired and carry it as a capital account; such an excess would not be chargeable with the goodwill purchased.

Despite all that has been said about the nature of the Goodwill Account many concerns will insist on its gradual extinguishment; such action cannot be criticized, especially if the stockholders do not object. The auditor, however, must be warned that the charges must be made not into operations but against Surplus Account at the end of each year after the profit and loss accounts have been closed.

PATENTS, TRADE MARKS, COPYRIGHTS, ETC.

These assets, in the case of the purchase of another business, are so closely allied with goodwill that they may be included therewith. Their value, however, is not determinable in the same manner. The unexpired years of the patents, etc., should be the basis of their valuation. If a patent purchased with the goodwill of another concern had but one year to run, its value to the buyer would be almost nil, whereas if the patent were to expire in ten years, the dangers from competition would be very remote and the value of the patent very great.

An account for patents, trade marks, or copyrights may, of course, appear in balance sheets independently of goodwill or where there is no Goodwill Account at

all. Such would be the case with a corporation that developed its own patents or bought them. The auditor should make sure that the charges to these accounts represent only actual cost in the case of purchase, or legitimate expenditures in the case of internal development. All legal expense in connection with obtaining patents, etc., and for protecting them may legitimately be capitalized. The preparation of drawings, patterns, and experimental expenses are also properly chargeable. However, when all of these charges have been properly capitalized, a company may adopt the plan of writing off these assets during the life of the patents or of the other legalized privileges.

Litigation expense in protection of a patent may justly be charged to the Patent Account, but any legal outlay in connection with a suit against others for infringement should not be capitalized thru the Patent Account; such expenditure may be deferred until recovery on the patent infringement suit and then charged against the income from the infringer, but it cannot be regarded as an expense of establishing the patent rights.

Patents or other legalized rights often become valueless or obsolete long before their expiration. Whenever this is true, the auditor should insist that the accounts reflecting these rights be written off against Surplus Account. All dead timber should be excluded from the balance sheet.

CHAPTER XII

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Notes Payable

Notes are given either in evidence of loans made from banks or others, or in payment for commodities, services, or contracts. The auditor should therefore schedule notes payable under the following two classes:

1. Notes given for loans:
   (a) From banks.
   (b) From others.
2. Notes given in payment of prior obligations covering:
   (a) Purchases.
   (b) Contracts.
   (c) Services.

It might be advisable to suggest a third class, viz., notes given by the company to its officers or employees. At any rate whether or not these are put into a separate class, they require very special and thoro examination.

NOTES GIVEN FOR LOANS

These should be scheduled in two groups, namely: (1) Loans Secured and (2) Loans Unsecured. They should be listed in the following manner under these two groups:

1. Date of note.
2. Creditor.
3. Due date.
4. Rate of interest.
5. Amount of note.
6. Interest accrued to date of audit.
7. Prepaid interest (if discounted) at date of audit.
8. Extra indorsers.
9. Renewal or original.
10. Collateral given as security (for Secured Loans).

Statements from the creditors should be furnished to the auditor direct, and these statements should show the details listed in the auditor's schedule. In requesting the client to furnish him with the statements from the creditors, the auditor should see that the letters addressed to the creditors call specifically for a list of any collateral deposited with the loans. The auditor's certificate or balance sheet must indicate clearly what assets of the client have been hypothecated. All loans must be investigated further thru the client's minute book, where the Board of Directors' authorizations should be found or where the general provisions empowering some official to make loans up to certain amounts could be verified.

All noteholders should be circularized. The statements received from them should then be compared with the loans or notes scheduled on the books and, of course, with the auditor's own list. Any discrepancies should be ironed out immediately. The cash receipts record must be scrutinized for every loan made during the period under audit whether outstanding at the end of the period or not. Cash or an equivalent must offset the entry for every note payable. The cancelled notes for previous loans or payments

should be demanded by the auditor; these notes must be clearly cancelled so that their negotiability is fully destroyed. Where such cancelled notes are not produced for inspection, the auditor must cover himself by stating that fact in his report together with an explanation of the deficiency from some responsible official.

Wherever notes payable registers are kept, the balances shown therein must first be compared with the creditor's statements and then with the general ledger controlling account. Where notes are used extensively, the auditor should suggest a note book wherein all notes are numbered and stubs are used to duplicate the notes. Under such a plan all cancelled notes should be pasted on to the stubs. The open stubs must then agree with the note register and the general ledger controlling account. The cancelled notes should be compared with the stubs so that assurance may be had that the stubs and notes are in agreement. Any alterations on either the stub or the note after cancellation should be very carefully investigated and traced to the cash records of receipts and payments, or to whatever accounts were affected by the making and payment of the note. If a note book is provided wherein each note has a number, then of course every number must be accounted for by a note still out, a note cancelled, or a note spoiled (which should be pasted on its stub). Wherever a numbering system is in use, the note number should be called for when circularizing the creditor.

A concern sometimes finances itself by either selling its notes to a broker or by having the broker sell the notes to other investors or banks. The broker should be requested to furnish a certificate to the

auditor for all notes purchased outright and held, or in case the broker sold the notes to others he should report on the notes sold and the notes still in his possession. In any event the proceeds must be traced into the cash receipts record by the auditor, and any unsold notes from which no proceeds were derived must be listed. These latter may be entirely disregarded, and therefore not included in the balance sheet, or they may be shown as liabilities offset by a charge to the broker. Notes sold by brokers should bear interest from date of sale and not from date of note; the interest account must therefore be carefully checked and all accrued interest set up in the accounts.

Many loans are made thru demand notes. In such instances, as a rule, interest is paid monthly. The auditor, however, must assure himself that such interest has been paid regularly or else he must schedule the accrued interest to the date of the audit; he must, of course, also schedule any accrued interest on demand notes since the date of the last interest payment.[1]

NOTES GIVEN IN PAYMENT OF PRIOR OBLIGATIONS

Notes given in payment of prior obligations should be carefully investigated. Notes given in payment of contracts or purchases can be verified from the correspondence files and by certificates from the holders. If the correspondence file yields sufficient evidence of the validity and nature of the liability, no certificate should be demanded; the latter course sometimes is misunderstood by the holder. The auditor should make it a point to determine why notes are given in payment

[1] The subject of Accrued Interest will be more fully discussed later.

of purchases; either the procedure may be perfectly normal where large quantities are purchased (often as an accommodation to the vendor or to secure low prices), or it may indicate financial weakness. If there is any degree of suspicion that the latter condition exists, the auditor should investigate the paying ability of the client generally. The results of such an investigation may reveal that there really is no financial weakness, but an improper provision for working capital. In this connection the auditor might render some valuable assistance by preparing for his client a comparative balance sheet and draft therefrom an "application of funds" statement which will clearly indicate the sources and uses of funds and the causes for shrinkage of working capital. A business may be financially strong and yet unable to liquidate properly its current indebtedness. If it invests too heavily in fixed assets, its working capital is affected; there should be a certain proportional relation between fixed assets and current assets so that the latter will be sufficiently strong to carry the expenses associated with the former. There must also be a limit to current liabilities carried by the current assets. A thoro study of the tendencies of indebtedness and the relation thereof to paying ability should enable the auditor to throw much light on the financial position of his client and the underlying causes of that position.

Notes given in payment for services are generally indicative of weakness. This statement may not hold with reference to closed corporations wherein officers may be willing to permit their salaries to remain with the company either to assist their colleagues temporarily or to be exchanged for an additional block of capital stock later on. In usual cases, however,

services should be paid for promptly by check or cash. The character of all notes given for services of any kind should be fully uncovered by the auditor and the recipients of the notes should be requested to state their side of the case. Notes of this kind should be so completely investigated that no suspicion as to their meaning should remain in the auditor's mind, and they must in every instance be related to the client's paying ability. The same care must be exercised in an investigation of notes of every description and character (whether for services or not) given to officers and employees of a business.

Accounts Payable

The audit of Accounts Payable will vary according to the systems of accounting used by various companies. These are of two kinds:

1. When an accounts payable ledger is used.
2. When a voucher system is in use and the accounts payable ledger is dispensed with.

ACCOUNTS PAYABLE LEDGER AUDIT

Wherever accounts payable ledgers are kept, the first step in the audit of Accounts Payable should be the verification of the balances in the accounts and a comparison of these with the accounts payable ledger trial balance. The trial balance total must then be compared with the general ledger controlling account—if such a controlling account is kept. The second step embraces the analysis of the accounts and the exclusion therefrom (if necessary) of any accounts which are not strictly accounts payable, or of any debit bal-

ances representing charge backs, overpayments, etc. Debit balances in the accounts payable ledger should be included with the receivables on the balance sheet. Analysis of the Accounts Payable are made with two objects in view—first, the determination of the age of the accounts, and second, the elimination from the accounts of all items that are not liabilities to trade creditors or for contracts.

The auditor should inspect all accounts and inquire very carefully into their character. If they are past due and not in dispute, the past due accounts should be separately stated in the balance sheet of the auditor's report; if they are in dispute, the reasons for this status should be made clear. Any doubtful or irregular items should be ironed out by obtaining a certificate or letter from the creditor. Reference to the correspondence files sometimes proves of considerable value, and the statements from the creditors should be compared with the balances. This latter comparison may reveal the fact that all liabilities have not been included.

To assure himself that all liabilities have been included in the accounts, the auditor should do the following things:

1. Examine the minute book of the company: liabilities may have been assumed by the board of directors which were not entered in the books or which, for policy sake, it would have been unwise to enter in the books for fear of making a confidential matter common property. Nevertheless the auditor must include such liabilities in his report.
2. All bills or invoices from vendors or creditors not entered should be examined, as some of these might apply to the period audited.

3. All entries of bills made subsequent to the period under audit must be examined, as a number of these may belong to the prior period audited. This examination must be intelligent and somewhat tolerant, because investigation generally shows that the amounts thus entered subsequent to the closing of any fiscal period appear in all fiscal periods. Thus an auditor examining the accounts of a company for a calendar year may find a number of December bills for telephone or telegraph service, expressage, cartage, etc., entered in January of the following year. He must not arbitrarily conclude that these accounts must be thrown back, because if he goes a little farther, he will probably find that the January of the year he is auditing contains about as many charges applicable to the year prior. Judgment must therefore be used in adjusting the Accounts Payable. Small, unimportant items may be disregarded, but any account of consequence must always be considered with this additional advice—that if the auditor insists on adjusting the Accounts Payable fully, it is better to include all of the liabilities no matter how small and adjust the accounts of the year prior, than to omit a single important item because of the tendency to believe that the liabilities between years run fairly uniform.
4. Bills covering goods in transit should ordinarily be set up as Accounts Payable and the goods themselves included on the balance sheet as inventory in transit. The object of the balance sheet in an auditor's report is to set forth truly the financial position of the client. Therefore all liabilities of the character just described must be included, even tho the goods have not yet been received.
5. Sometimes there are liabilities for goods sold on consignment, as consignment accounts are often carried in memorandum form only. The full liability to the consignor should be included in the Accounts Payable if

the goods have been entirely sold, and separately indicated as a liability to consignor if partly sold. Since the former represents a completed transaction, the liability is the same as to a trade creditor, whereas the latter case presents an account in formation and should therefore receive a separate designation.

6. As a final precaution the auditor should obtain a certificate from the proper official of a company stating that all liabilities for purchases, expenses, contracts, etc., have been included in the books of account and that there are no claims, law suits, or liens registered against the company.

VOUCHER SYSTEM AUDIT

Practically all progressive firms have adopted voucher systems in connection with their Accounts Payable. Where these exist, all liabilities are entered in the books as incurred and the verification of the Accounts Payable is much simplified. But even here it is necessary to make certain that all goods received on the last day of the period audited, as shown by the receiving clerk's records and all goods in transit, are not only properly included in the assets, but in the liabilities as well. These items, because of certain delays in internal checking, might readily be omitted from the voucher register. Of course, the voucher register for the month or several months after the period under audit, should be searched for any items properly belonging to the prior period.

Where the voucher system is in use, we rarely find accounts payable ledgers. These latter are unnecessary because the file of unpaid vouchers is in itself the equivalent of a ledger. Moreover, the balances drawn up from the unpaid voucher file must agree

with the unpaid items on the voucher register and with the general ledger controlling account for vouchers payable as well. In verifying the latter account the auditor may follow one of two courses: he may list the open unpaid items from the voucher register, comparing the total thereof with the controlling account, or he may make an independent list of the unpaid vouchers from the unpaid vouchers file and compare the totals thereof with the controlling account. Either method should give the same result, and if the auditor is very conscientious he may first prepare the list from the unpaid vouchers file, compare this with the unpaid items in the voucher register, and then finally check his totals against the general ledger controlling account.

CHAPTER XIII

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Accrued Liabilities

There are few concerns to-day that do not keep their accounts on the accrual basis. Income is no longer considered synonymous with cash received, and expense is no longer confined to expenses actually paid. Income consists of the earnings of a business growing out of a period of operations irrespective of collection and independent of the Cash Account; to put it more clearly, income accounts are credited for all values leaving a business in the form of sales, services, etc., without any regard to the Cash Account. Some of the sales may be cash sales, but that is merely a coincidence of cash receipts and income and in no way affects the principle just laid down. Expenses consist not of expenses paid but of all expenses actually incurred in obtaining income or in connection with the operation of a business during a designated period.

The first development in accounting on the accrual basis came with the establishment of Accounts Receivable and Accounts Payable. The use of these accounts in even single entry bookkeeping injected an accrual element into accounting so that when profits were figured on the basis of comparison of assets and liabilities, the results of operations were revealed on an income and expense basis rather than on a

mere cash basis. By giving effect in the comparative statements of assets and liabilities, personal accounts charged and credited were considered and not cash receipts and disbursements. One can readily see that if a correct inventory were taken under a single entry system, so that all assets and liabilities would be expressed (including deferred charges and accrued items), the profits established by a comparison of such actual inventories between two dates would necessarily include (whether intentional or not) the results of operations on an accrual basis.

In modern double entry bookkeeping, we no longer consider Accounts Receivable and Accounts Payable as accrued accounts; we think of accrued accounts as accumulating assets or liabilities which are collectible or usable, and payable or due, respectively, at some future time, even tho the portion accrued to the end of a certain period represents an asset or liability at that date.

Under Accrued Liabilities in modern accounting we find the following accounts:

1. Accrued Interest.
2. Accrued Wages and Salaries.
3. Accrued Taxes.
4. Sundry accrued accounts.

ACCRUED INTEREST

Accrued interest is a liability concomitant to other liabilities or superimposed thereon. Thus the partial liability for monthly interest, on an issue of bonds, which is payable on a later date, represents the accrued interest on those bonds; it is here in the strictest

sense of the word an accumulation liability from last payment of interest to the next payment, so that if an audit covers a period ending between two such interest payment dates, the accrued interest is that accumulated liability from the date of last interest payment to the date at the end of the audit period. The same accrued liability would exist at a certain date between interest payment dates on loans from banks where the interest followed the note.

In most modern accounting systems, provision is made whereby the accrued interest is recorded monthly. Under such conditions it is the auditor's duty to verify the accrued liability thus constructed. In quite a number of cases, however, the auditor will find that the accrued interest has not been taken up in the books, and it then becomes his duty to construct the account and to recommend its inclusion in the books. He must be on guard, however, with reference to the procedure at the beginning of the period he is auditing. If he sets up the liability at the end of the period and charges interest expense, he must eliminate that portion of interest paid after the beginning of the period which represented an accrued liability of the period prior to the audit.

Accrued interest liability will, as a rule, be found in connection with long time loans or loans running beyond the period covered by the audit where the interest follows the note. Discounted loans, of course, if over thirty days' maturity or if extending beyond the period under audit, give rise to the Prepaid Interest Account discussed heretofore. The interest on demand loans is generally paid at the close of every thirty days; therefore any accrued interest on these will usually represent the partially expired portion of

a thirty-day interest period. Accrued interest on bonds can readily be figured, and represents the liability since last interest payment; here the auditor must make sure of his accounts by examining the bonds themselves to determine the last coupons clipped. If the bonds are not coupon bonds, the auditor must satisfy himself that all deposits up to and including the last interest payment date in the period, for interest due on the bonds, have been made with the trustee or the interest paying agent and that the Interest Expense Account has been properly charged. The accrued liability, if any, will then represent the interest payable but not yet due from the date of the last interest deposit. The interest deposits with a trustee should be offset by the coupons presented, paid, and cancelled, or by the receipts from the investors obtained thru and from the trustee when the bonds are other than coupon bonds. Any balances remaining with the trustee should equal the sum of the coupons outstanding and unpaid. The holders of these should be circularized, if possible (where registered), and should be requested to cash them.

The accrued interest liability should be constructed by the auditor, or verified by him (if already on the books), in connection with the basic liabilities on which the accrual rests—i. e., in connection with the examination and scheduling of the notes payable or bonds payable. The determination of the accrued liability is entirely dependent upon the information obtained from the basic liabilities. The bank or the holder of a note should be asked to furnish information on the amount of interest accrued in connection with the certificate covering the loan proper.

ACCRUED WAGES AND SALARIES

Wherever the voucher system is in use and a voucher register in operation, accrued wages and salaries are as a rule included in the accounts and form a part of Vouchers Payable. For purposes of balance sheet construction it is desirable, however, for the auditor to separate the Vouchers Payable into regular creditors' accounts and the various accrued accounts so that each may stand out distinctly.

Where no voucher system is in vogue, it sometimes becomes the auditor's duty to set up the liabilities for accrued wages and salaries. As an audit is started subsequent to the payment of wages or salaries chargeable to the period under review, there should be no difficulty in determining the amount of these liabilities accrued at the end of the period. It is sufficient if this be done on a fractional basis rather than by reference to each individual time card. Thus if four days of a weekly pay roll had accrued, it will be satisfactory to take four-sixths of the entire pay roll paid unless some unusual condition surrounds the case in question; if, for example, the week ended with a Saturday and the men worked until Saturday noon only, then the pay roll should be split on a fractional basis of hours instead of days.

The auditor must again be cautioned that if he sets up an accrued liability for wages and salaries at the end of the period, he must assure himself that the accounts reflect the same adjustment at the beginning of the period.

In setting up a liability for accrued salaries the auditor must include not only the salaries of officials

and clerks but also any salaries due in part to traveling salesmen or agents.

ACCRUED TAXES

Accrued taxes can be determined from the last tax receipt covering the taxes for the period prior to the one under audit. This tax receipt should furnish a correct basis for estimating the taxes for the period audited, and unless additions to property have been made before the assessment date or the rate changed, the tax should be the same. If additions were made which were assessed, the amount of the assessment can readily be determined thru the local taxing body; changes in rates can be learned in the same way. A concern keeping its books on a monthly basis should set up each month's tax accrual, thereby automatically building up the entire liability at the end of the year and to that extent stating its monthly expenses properly.

Whenever monthly profit and loss statements are prepared, the plan can be so extensive as to include not only property taxes but the Federal Income Tax as well. But a reserve for the present Federal Excess Profits Tax cannot be constructed until the end of the year, after the entire profits have been determined. At that time the amount of Excess Profits Tax should also be accrued, as the tax is levied specifically on the profits of the closed period. Under the 1917 Federal Tax Laws the Federal Income Taxes actually paid during 1917, or in subsequent years as long as these laws are in force, cannot be deducted as expenses in making out the Income Tax returns; state income

taxes and all other state taxes actually paid are deductible.

Before setting up the amount of accrued taxes, the auditor must satisfy himself that all taxes for years prior to the one being audited have been paid. This can generally be accomplished by an examination of the tax receipts, which as a rule indicate the year for which the taxes were paid; if they do not, a trip to the tax collector's office will be necessary.

SUNDRY ACCRUED ACCOUNTS

Often certain accrued liabilities are entirely overlooked by a number of concerns; if they are consistently overlooked year after year and run fairly uniform as to amounts, the operating expenses will not be visibly affected. If, however, they vary radically from year to year, the results from operations will be affected. The solution is to include all these liabilities at the end of every period, whether they vary from year to year or not. Under this class of accrued liabilities often omitted, are traveling expenses, sales commissions, legal expenses, damage claims, and declared dividends.

The auditor should secure a list of all traveling salesmen and should then obtain the expense reports paid just subsequent to the close of the period under audit. These reports will clearly reveal the amounts accrued, if any, at the end of the period. If the accrued portions were not entered on the books and are of sufficient amount, the auditor must provide for the liability and adjust his statements accordingly. If the amount be small, no adjustment need be made. Commissions payable on sales must also be taken into

consideration, but the practice of the client as to payment of these must first be determined. In some companies commissions are not payable until the customer has paid his account; if this be the case, the commission should nevertheless be accrued, since it is a charge against the profits derived from the sales included in the period. Other concerns pay commissions as soon as goods have been shipped and billed, and the liability must be set up at that time.

Lawyers are proverbially slow in sending their bills, and before a true statement of liabilities can be constructed the auditor should make sure that all legal bills have been received, or he should request that such bills be presented showing the charges to the end of the period he is auditing. Often evidence of litigation appears only in the minute book; hence a careful perusal of the minutes is necessary—in fact, the minute book should be carefully examined with regard to many other matters and copious notes made of its contents so far as the operations, expenses, income, assets, and liabilities of the concern are affected. In the minute book too there may appear evidences of liability for damage suits not covered by insurance; the papers and legal opinions in connection with such suits should be carefully inspected and the proper accrued liabilities or reserve set up. If it appears that a certain amount is clearly conceded by the attorneys, then the liability should be stated as an accrual; if the case is not clear and the outcome doubtful, a proper reserve should be constructed.

Dividend declarations also appear in the minute book, and whenever a dividend is declared the books should register an entry charging Surplus or Undivided Profits and crediting Dividends Payable. A

dividend declared, in the eyes of the law, is an account payable and should be recorded as such; it must not remain as part of the Surplus Account or the net worth of the company will be misstated. Consequently all dividends declared, even if on the last day of the company's fiscal year, must be shown as a current liability or, in other words, as a reduction in net worth.

CHAPTER XIV

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Reserves

Reserve accounts are not liabilities; they are ordinarily adjustments to assets, and so far as they are such adjustments, they should be deducted from the proper assets in the preparation of the balance sheet. Reserves, as a rule, are valuation adjustments; thus a reserve for doubtful accounts is merely a means of indicating by deduction the estimated real value of the Accounts Receivable. Some accountants prefer the term "provision" in place of "reserve," but from a standpoint of accuracy neither term is really descriptive of the nature of these accounts. They are in reality and in most instances valuation adjustment accounts. Thus, the so-called "reserve for depreciation" represents nothing more or less than the estimated shrinkage thru use of certain fixed assets, the shrinkage having been charged into operations as a current cost. The reserve for depreciation itself does not carry with it any reserve power to restore ultimately the wasting asset; the reserve merely shows the credit side of the shrinkage which has been charged into operations. The charge to operations and the consequent inclusion of that charge in the sales price is the *sine qua non* of the asset's final restoration.

The most common reserve accounts encountered by the auditor are the following:

1. Reserve for Depreciation.
2. Reserve for Bad and Doubtful Accounts.
3. Special Reserves (miscellaneous reserves).

RESERVE FOR DEPRECIATION

The Reserve for Depreciation is strictly an adjustment to estimated real value of property accounts and is therefore a valuation account and not a liability. It is of vital importance that the auditor pass carefully on the rates of depreciation used. Also, he must relate the amount of depreciation to the amount expended for repairs; it is very evident that an equipment well maintained and kept in good repair will outlive similar equipment which is not kept up. Repairs, of course, cannot cancel depreciation, but repairs do make depreciation normal. When, therefore, a machine is estimated to have a useful life of ten years, the presumption is that it will last ten years if kept in proper repair.

Sometimes it is difficult for an auditor unfamiliar with machine construction to pass proper judgment on depreciation rates. He must be guided, in that event, by his own experience, by the reports of engineers, by the past experiences of his client as reflected thru the accounts, or by the estimates of appraisal companies if any are available. Again, an auditor must closely scrutinize the repair accounts, for he may find therein charges for renewals and replacements which will compensate for seemingly low depreciation rates. The auditor should strive to obtain, as best he can, the most reliable statistics on the estimated

life of the various types and classes of property of his client and from these should construct the depreciation rates and amounts which he deems ample to provide fully for the eventual rehabilitation of the properties. In a first audit this may mean a great deal of detail work; it may mean the establishment of a rate for each piece of property, equipment, and machinery, but after this work is all completed a flat rate for each group of assets can readily be fixed for future use and for the benefit of the client. It should always be borne in mind that depreciation is a purely estimated expense and yet, in order to reflect truly the financial position of a company or the results from operations, the estimate must be as closely accurate as possible. No time or trouble should be spared to make it so. Fortunately the United States Government, a number of state public service commissions, and some of the large engineering firms have made quite exhaustive research on this subject; some of their conclusions can be regarded as authoritative wherever normal conditions prevail. Rates of depreciation on various types of buildings and various classes of equipment and machinery, proposed by the above-mentioned authorities, are based upon quite thoro examinations and extensive experience.

The auditor often encounters strong opposition to his recommendations as to depreciation. Sometimes this opposition is fostered by a lean year as far as profits go, and at other times by an absolute lack of understanding of the nature of depreciation. In both cases one will find that the management does not regard depreciation as a current expense forming a part of operating costs which must be included before real profits are determined, but as an element outside

of regular operations for which a portion of profits must be set aside. Viewed from this angle, if so-called "profits" are small, there is a strong temptation to disregard depreciation entirely; the real gist of such a condition is that because the management disregards this element of cost as a current operating expense, it is almost imperative that it be disregarded at the end of a fiscal year if a profit is to be shown. In reality the status of small unreal profits or possibly an actual loss is brought about by the non-inclusion of depreciation in current costs, thereby also excluding it from the sales price upon which the profit is based. The object of all business is to return to the proprietor, whether individual or corporate, all the expenses of conducting a business, the costs of materials used or sold, the interest on borrowed capital, and a profit besides. There is only one way in which these outlays, expenses, and profits can be returned and that is thru sales; therefore they must all be included in the sales price. If they are not and one is blinded to the fact that an expense like depreciation is a real expense, then usually the profit of a concern will be smaller by an amount equal to the depreciation omitted.

The sole object of charging depreciation currently into operations is the preservation of capital investment intact. Buildings, machinery, and operating equipment are all exhaustible. Their exhaustion thru use is depreciation. Capital assets are therefore merely long-deferred charges to operation and do not differ in nature from other deferred charges; the only difference is one of time. To charge for the exhaustion of property currently, therefore, insures the necessary funds whereby the original investment in property may be fully restored. The inclusion of depreciation

in costs and therefore in sales price, returns the capital in cash and thereby makes the replacement of properties possible. The importance of charging depreciation into operations is always very evident to a bondholder or mortgagee. If funds are provided for the restoration of exhausted properties and these funds are used from time to time for such restoration, the security behind a bond issue or mortgage remains unimpaired; if such provision is not made, the security may be worthless when the bonds become due and no funds will be available to counteract the loss in value of the security. Where there are no bonds or mortgages, the stockholders suffer whenever depreciation is not considered. The net worth of the company will be decreased even if the books do not show it.

There are several methods in use for figuring depreciation. The most common of these are:

1. The fixed percentage on original cost.
2. The fixed percentage on diminishing values.

Under the first method the estimated life of the property is determined, the scrap or residual value deducted from the cost, and the remainder divided by the number of years the property is expected to last. Thus, if a machine costing \$100.00 with a scrap value of \$10.00 will last 10 years, one-tenth, or 10 per cent of \$90.00, will be charged each year to depreciation.

The second method is based on the assumption that repairs to property increase with its age and that therefore to equalize the entire upkeep charges, the earlier years should bear the heaviest depreciation, the repairs being very light during those years. This assumption would be correct if a piece of property

or a machine were permitted to waste away naturally. In reality, however, replacements and restoration are not delayed until final decay; properties are being rebuilt and machine parts replaced constantly, so that repairs may be no larger the last year than the first. In fact, the property may have been entirely restored at the end of its originally estimated life. Restoration and replacement must be current in order to make machinery and buildings efficient; if they were permitted to depreciate and the reserve for depreciation were not drawn upon until the estimated life had been ended, the plant or factory would probably be working at about 30 per cent efficiency or less for a number of years.

The fixed percentage on original cost method is therefore probably more effective than any other, especially in view of the fact that repairs do not necessarily increase with the age of equipment, since in practice restorations and replacements being made constantly tend to equalize repairs. The added advantage of this method is its simplicity, which is especially noticeable in connection with detailed cost systems where it is important not to change rates frequently merely for some theoretical consideration.

The fixed percentage on a diminishing values method is, however, a fairly simple method. It places the heaviest amount of depreciation on the early years, the assumption being as heretofore indicated that repairs increase from year to year and that therefore the sum of depreciation and repair charges each year will be fairly constant. From a mathematical standpoint there are no difficulties in applying this method. It is necessary only to find the rate which, when applied against each diminished balance at the

end of a fiscal period, will write off the asset during its estimated life. The formula is as follows:

$$x = 1 - \sqrt[n]{\frac{a'}{a}}$$

a' = the salvage value
a = the total cost
n = the life in years
x = the percentage required

Thus, for an equipment costing \$243.00 with a salvage value of \$32.00 and an estimated life of 5 years, we would have

$$x = 1 - \sqrt[5]{\frac{32}{243}}, \text{ or } 1 - \tfrac{2}{3} = \tfrac{1}{3}, \text{ or } 33\tfrac{1}{3} \text{ per cent}$$

This rate applied to the original cost, \$243.00, would give the following amounts of depreciation each year:

First year	33⅓	per	cent	of	\$243.00 =		\$81.00
Second "	"	"	"	"	162.00 =		54.00
Third "	"	"	"	"	108.00 =		36.00
Fourth "	"	"	"	"	72.00 =		24.00
Fifth "	"	"	"	"	48.00 =		16.00
Total depreciation							\$211.00
Salvage value							32.00
Total Cost							\$243.00

There are two other methods of figuring depreciation, namely, the sinking fund and the annuity methods. These are rarely used. According to the sinking fund method a certain amount of money is set aside periodically to accumulate at compound interest; this fund, it is assumed, will at the expiration of a certain time

grow to a size sufficient to replace the equipment. The annuity method fixes the annual depreciation by determining a sum which, when taken annually from the investment balance of the previous year and increased by the interest rate on the investment, will entirely eliminate the asset during its estimated life, and which will at the same time provide the full amount of interest return on the investment at its annual decreased value.

Whatever method of depreciation is used by a client, the auditor's duty is to satisfy himself that the amounts written off are adequate and that the practice is consistent and constant. He must also be sure that the depreciation is ample to cover possible obsolescence. In some companies the obsolescence feature is a pronounced one. Whether in such cases the reserve for depreciation is sufficient to cover obsolescence besides, can as a rule be determined by the charges to the depreciation reserve for equipment scrapped or sold, and by an investigation of the depreciation rates for each type of equipment. It is a wise policy in any concern to make all depreciation rates somewhat higher than normal in order that the extra reserve thus created on all equipment may be utilized for the obsolescence of individual types of equipment. Where obsolescence is not or cannot be provided for out of regular operations, it is the duty of the auditor to investigate very thoroly the property accounts and, if necessary, the equipment itself in order to exclude all obsolete property from the accounts.

Emphasis has so far been placed on providing adequate reserves for depreciation, so that the balance sheet may reflect actual financial position and the profit and loss statement proper results from opera-

tions. The auditor, however, should emphasize just as strongly that depreciation provisions grossly in excess of adequacy create a secret reserve, a misstatement of operations, and a perverted balance sheet. The result is expressed in an incorrect value (book value) of net worth which might actually lead a stockholder to sell his shares at less than their real value. In fact, "the excessive depreciation method" of routing out small stockholders has already been used too often. Tho the public accountant is not a guardian of public morals, the ethics of his profession should lead him to condemn sharp business practices injurious to the public or the investor. An auditor engaged to examine the books of a corporation should bear in mind that his report is for the benefit of the entire corporation, including the stockholder, and that the latter's interests must be safeguarded. If his comments as to excessive depreciation are to be of any use, they should be made in footnote form on his balance sheet certificate as well as in the text of his report. If given merely in the text, the chances are that the stockholder will not see them; but being made part and parcel of his certificate, which must be used in unabridged form or else be grossly misrepresented, such comments will surely attract every stockholder's attention.

CHAPTER XV

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

RESERVES (Cont'd)

RESERVE FOR BAD AND DOUBTFUL ACCOUNTS

Irrespective of the mode of its construction, there is only one way in which the auditor can properly verify the adequacy of the Reserve for Bad and Doubtful Accounts, and that is by an analysis and valuation of the receivables at the end of the period under audit. He must schedule the accounts as to their age; he must consult the correspondence files of the collection department; he must examine the customers' habits of payment; he may have to look up the reports of credit agencies; and it will be necessary to refer to the correspondence with attorneys or collection agencies for any accounts in suit. The essence of the entire examination is to determine the cash value of the account at a specific date. This is after all a process of inventory and the difference between such an inventory and the book values of the receivables should be the amount of the reserve. Some of the details in connection with scheduling the receivables for purposes of creating a reserve for doubtful accounts have already been discussed heretofore in connection with Accounts Receivable.

It seems that in every business losses from bad accounts must occur, so that in reality these losses

must be considered as an expense of the business. The extent of the losses is almost solely dependent upon the activity and ability of the credit and collection department. If losses from receivables are viewed as a necessary expense of doing business, then it seems that the best method of providing a reserve would be by current charges against revenue. In fact, many concerns have adopted this plan; that is, they charge a certain percentage of their monthly sales into Bad Debts Account and credit Reserve for Bad and Doubtful Accounts. The percentage used is based upon the past experience of the company. The per cent of actual losses to total sales for a number of years is determined, and the per cent is then applied to current sales, thus making provision thru operations for the anticipated losses on current sales. This method is an excellent one but, of course, the adequacy of the reserve thereby created must stand the valuation test above described. It is the auditor's duty to apply the test because, after all, the percentage to sales reserve is constructed under the assumption that current conditions of extending credit have not varied from past conditions on which the percentage is based.

The reserve constructed on the percentage-to-sales method is much better than the method of creating a reserve annually, for it brings before the management an expense or loss which ought to be considered in current monthly operations and price making. It is one of the necessary evils of business and should be based on the income account against which the eventual loss is a charge, that is, the Sales Account. To wait until the end of a fiscal period for the creation of the reserve on a valuation basis means two

things—first, a great deal of detailed analysis of the Accounts Receivable, and second, the temptation to minimize the amount of uncollectibles, either to help keep the profits up in lean years or to maintain the standing of the credit and collection department. The percentage-to-sales method, being based upon actual losses in relation to sales, eliminates the personal interests and removes the need for estimating collectibility except as a test.

SPECIAL RESERVES

As a rule, reserves which are not valuation adjustments form part of the Surplus Account or the net worth of an organization. They are in that sense not reserves at all but specially appropriated surplus. When carried separately on the balance sheet, they should therefore appear in the net worth division. Thus a reserve for working capital consists of a portion of surplus which it is intended shall not be distributed as dividends but is to be used in the business. But even tho such a reserve be set up, this action would not prevent the directors from distributing the reserve as a dividend if conditions later showed that the reserve was not needed for the purposes originally in mind.

Premiums received on capital stock sold do not constitute a reserve. There is no liability or adjustment to asset accounts; such premiums may be accounted for in a special Surplus Account; they should under no conditions be credited to the general Surplus Account. A reserve created for sinking fund requirements to cover depreciation cannot possibly be a liability. Such a reserve would merely show that the

amounts stipulated by the trust indenture had been provided for out of operations. In the balance sheet the reserve would be deducted from the asset. A Sinking Fund Reserve Account for depreciation would in this way show, by deduction from the proper account, the actual value of the property; the sinking fund (cash or securities) itself would be included in the assets and would either equal or exceed the amount of reserves deducted from the property accounts. After the provisions of the depreciation sinking fund are entirely satisfied, the reserve account will be closed into surplus since the sinking fund itself, if used as provided, will restore all the property to the original values. As long as the fund is actually set aside the reserve is really a deferred profit, which, however, from conservative motives is specially set up to show the status of the property and which is carried as a reserve until the sinking fund is actually used as intended; thereafter the reserve may be carried into surplus and distributed as dividends.

Sinking funds created to retire bond issues are as a rule also offset by reserves created as a charge against earnings. This is a sound practice since it prevents the declaration of unreasonable dividends before the bonds are all retired; it is a protection to the bondholder, altho the amounts so reserved will eventually represent surplus available for dividends to the stockholders and in that sense constitute a deferred surplus account and form part of the net worth of the company.

There are, however, a number of special reserve accounts which are adjustments to asset accounts. Such are, for example, reserves for anticipated discounts on accounts receivable. Tho the amount of such dis-

counts cannot be positively determined, the past experience of a client should form the basis of the auditor's judgment in passing on the adequacy of such a reserve. It is hardly necessary for an auditor to set up this reserve if it is not the custom of his client to do so. In fact, it is questionable whether discounts of this nature are chargeable against the period in which the sale was made; the discount is an inducement made by the seller to secure funds, and in that sense is really a charge against the financial division of a business when the discount is actually taken and the funds received. The discounts here discussed are cash discounts and not trade discounts. Trade discounts, as a rule, are not included in the charge to customers; if they are, then the auditor must deduct them from the Accounts Receivable and the Sales.

Reserves may be created for contingencies where the chances are strong that these contingencies will eventually become actual liabilities. Thus a reserve for legal expense may be constructed in connection with patent infringement or damage suits, because as a rule the exact amount of legal expense cannot be determined. Again, a certain concern may wish to set up a reserve for royalties in case of uncertainty as to the patent rights of others, the concern itself not being sure whether it is infringing or not.

Secret Reserves

Secret reserves are known as "secret" because they never appear on the books; in reality they are not reserves at all, but represent unrevealed financial strength or net worth. They are created either intentionally or unintentionally. When created inten-

tionally, the management of a company does so from one of two motives—one fraudulent, the other guided by motives of conservatism. If assets are intentionally omitted from a company's balance sheet or expenses are charged into operation in excess of requirements (such as excessive depreciation) for the purpose of discouraging small stockholders to the extent of making them sell their holdings on the basis of a fictitious net worth, such actions are obviously fraudulent and dishonest and an auditor should disclose them fully in his report or certificate. However, a secret reserve may be created intentionally without any attempt to defraud the stockholders. Excessive depreciation may be written off during very prosperous years in order to equalize earnings, it being the practice to write off small amounts or no depreciation at all in the lean years. This legitimate practice makes for uniform net profits each year.

Secret reserves are being unintentionally or unconsciously created almost constantly in the vast majority of business enterprises. The growth of a firm's good-will and the increases in values of real estate are typical; such values are not reflected on the books, but are nevertheless quite real and become actual whenever the business is offered for sale. Such secret reserves, if they may be called such, need not be discussed by the auditor, as they are part and parcel of every business that is prosperous and favorably located.

Intentionally created secret reserves are constructed most commonly in the following ways:

(1) By charging off excessive depreciation—or by writing off certain assets entirely—and by the creation of exces-

sive bad debt reserves. This may be done out of motives of conservatism, in order to discourage small stockholders, or to avoid taxation of income.

(2) By the reduction in values of inventories beyond the "cost or market" rule. This method is generally employed to deceive, because a reduction here would be hard to detect. The auditor can verify inventory valuations by referring to the purchase invoices and to the cost and production records for valuations of goods in process and finished goods. If the reduction is produced by the omission of quantities, he should apply his inventory tests as to quantities. This can be done by using the sales and purchase records or a combination of these with production records in a manufacturing plant, limiting this test to quantities exclusively. This matter has been fully covered under the caption of Inventories.

(3) By charging plant additions or inventoriable items to expense accounts. A thoro analysis of the expense accounts will reveal the extent of this practice and will furnish the material for adjusting the accounts accordingly.

(4) By writing off into operations intangible assets like goodwill paid for in capital stock or cash, when in reality such assets in no way affect operations. If it is deemed expedient to write off goodwill, then the net profits from operations should first be clearly shown and the deduction for goodwill shown as an extraordinary item. In this way every stockholder can see the actual profits of a period and not be deceived.

(5) By merging or hiding certain assets with or under other assets to which they are not related.

The auditor's attitude on the question of secret reserves should be decided and positive. Wherever such reserves are found, he must comment fully on their nature in his report or, where his balance sheet

certificate only is to be used for publication or before stockholders' meetings, he should qualify the certificate to show that the assets are undervalued, that certain reserves are excessive, or that some assets have been entirely omitted. If, of course, the auditor's report is not used nor his certificate published or presented, nothing can be done to inform the stockholders of the true state of affairs. But if the auditor has reported his findings and has qualified his certificate, he has done his full duty and no responsibility as to misrepresentation of facts could be placed on him. In fact, if the management of a company presented a balance sheet to its stockholders omitting the auditor's qualifications, and yet claimed that the balance sheet was the auditor's balance sheet, legal recourse could be had by the auditor against such representation; his standing as a public accountant might be thereby injured even tho no damage were done to stockholders or creditors. If the latter were injured, then the auditor would be considered liable and the measure of damage done by the client might be even greater.

CHAPTER XVI

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Fixed Liabilities

Fixed liabilities are, as a rule, liabilities against fixed assets, and vary from current liabilities in that they are not payable immediately but after a considerable lapse of time as evidenced by some sort of contract, lien, deed of trust, or mortgage. They are "fixed" not only in the sense of being long time obligations connected with certain fixed assets, but they are fixed because due on a specific date at some future time. The term "fixed," however, means primarily that the liability is a more or less permanent one as distinguished from the changeable character and amounts of the current liabilities.

Under fixed liabilities we generally find the following:

1. Mortgages.
2. Bonds.
3. Miscellaneous liens.

MORTGAGES

Mortgages are of two kinds—those secured by real estate (land or land and buildings) and those secured by chattels or personal property. The auditor rarely encounters the latter kind except in concerns suffering from temporary or permanent financial straits.

Unless the power to mortgage a company's property, whether real or personal, is specifically denied to the board of directors by the by-laws or by state legislation, the latter body possesses the prerogative to impose these obligations upon a corporation.

The auditor's first duty in connection with mortgages is to secure copies of the mortgages themselves and from them to tabulate the amounts due, the dates due, the rates of interest, and a description of the properties hypothecated. He must then assure himself that the holder has recorded the mortgage by reference to the files of the county records, that all interest has been paid as stipulated, and that the books show the accrued interest, if any. Unpaid interest on mortgages is an additional lien on the property. It is important that the mortgage contract be read in full, as there may be provisions therein which call for certain performances on the part of the mortgagor. It is the auditor's duty to satisfy himself that such provisions have been fully complied with.

The object of mortgaging property should be determined. Property may be mortgaged as a means of securing funds for enlargement of business activities, for construction purposes, or because a company's finances are weak. The auditor must also make certain that the indebtedness is offset by value received and that the mortgage is not given to an officer for services or to some favored creditor to the damage of other creditors. Of course, an auditor cannot prevent such action, but he can make his report and certificate so lucid on the point that any creditor or stockholder reading either will suffer no misapprehension as to the status of the mortgage. And, in any event, if a mortgage be made in favor of an

officer, the auditor should make sure that the services were actually performed and that they do not represent an arbitrary estimate made merely to give a large stockholder an added security to protect his investment. The courts would probably hold any act of this kind illegal and a misapplication of funds, especially if there should be any hint as to insolvency.

BONDS

An issue of bonds secured by real estate is merely ancillary to a mortgage and, because the bonds may be of small or medium denomination, provides a more ready means of securing funds. A mortgage alone presupposes the obtaining of funds from one individual or corporation, whereas bonds secured by a mortgage can be sold to many individuals who could not as separate individuals furnish funds to the full extent of the mortgage. However, where a firm is not well known it is quite difficult to dispose of an entire bond issue, so that the straight mortgage plan of financing is probably preferable.

In verifying the Bond Account, the auditor must read both the mortgage and the bond, or copies thereof, very carefully. The wording on the bond is generally fixed in the mortgage and the mortgage or trust indenture will also cover all matters as to redemption or sinking fund provisions, payment or deposit of interest installments, and the nature and extent of the security. It is always necessary for the auditor to know what properties have been hypothecated so that a knowledge may be had of the properties that are free from lien. In constructing the balance sheet the unincumbered property should be separately stated

in order to reflect additional borrowing power. It is also important for the auditor to note whether the bonds are a first lien on certain assets and a second lien on other property, and whether the security is ample in either case as required by the trust indenture.

Special clauses are often found in trust indentures, and it is the auditor's duty to comment upon whether or not the provisions have been fully met. For example, a trust deed may stipulate that the net quick assets must at all times be in excess of the total amount of the bond issue or that, when the profits exceed a certain figure, a certain percentage thereof must be set aside in a fund for bond redemption over and above the amounts which may be regularly required for sinking fund provisions. The corporation must comply with all these stipulations and the auditor must comment in his report as to whether it has or has not been done.

Bonds are of two kinds, coupon and registered. The interest on registered bonds is paid to the specified holder, as indicated by the registrar's file, either by the company's or maker's check, or by the trustee with whom the interest may be deposited; the interest on coupon bonds is payable to bearer, and is as a rule payable thru the office of the trustee with whom the full amount of an interest installment must be deposited.

The bonds outstanding, that is the liability, may be verified in a number of ways. In the first place it may be assumed that bonds are sold for cash or some equivalent. The bonds outstanding can therefore be verified from the cash receipts record, or if some were issued for property or other assets the journal should yield the requisite information. Again,

the outstanding bonds may be verified by an inspection of those unissued, it being assumed that any not on hand must be outstanding or if not outstanding they may be out as collateral. In the latter case they should be considered as issued, but also as the property or investment of the company. A further verification of the bonds outstanding may be had thru the interest coupons if they have all been returned; the cancelled and paid coupons (as further established from the cash book) will indicate the amount of principal on which the interest was paid. The interest coupons on unissued bonds would be clipped by the company itself and would therefore not appear in the cash transactions; these coupons must, of course, be deposited with the trustee with the deposit of the interest installments so that the sum of the two will represent the interest due on the entire bond issue. Therefore the trustee's receipt will afford a further means of verifying not only the interest paid but the bonds outstanding as well. In the case of registered bonds the registrar's records, or his certificate, will establish the outstanding bonds, provided all holders have registered; or the interest payments evidenced by the company's own cancelled checks will suffice if the auditor bears in mind at all times that not only one of the advocated methods is to be used but, if necessary, all of them, in order to establish the liability for outstanding bonds, accrued interest thereon, or the interest payments themselves. A final proof of outstanding coupon bonds is the certificate of the trustee, which should be obtained by the auditor.

The recorded mortgage, a lien in the eyes of the law, remains as an encumbrance on the property in its original amount, even tho the payments have been

made on it, unless the payments are also recorded. If therefore payments appear in the client's books, the auditor should see whether they have been recorded and the lien of record reduced thereby. If such payments are not recorded, the lien of record, as originally established, should be shown on the balance sheet and the payments made shown as a deduction with the explanation that they were not recorded. Redeemed bonds should be carefully inspected to see that they have been properly cancelled. The value of bonds redeemed should also be recorded as a reduction of the lien of record which, of course, is the mortgage securing the total bond issue.

MISCELLANEOUS LIENS

The auditor, while examining public records with reference to the recording of any mortgages or payments thereon, should also inspect these records for any other liens or mortgages that may still appear as unsatisfied, even tho the client may actually have liquidated the indebtedness. Then again such a search (which of course, should not be too detailed) might reveal the existence of other liens not appearing on the client's books. There might be liens for unpaid taxes, mechanics' liens, or—more commonly—judgments. Any of these might or might not be discovered by a more or less formal search among the public records, so that the results of such a search would not necessarily be conclusive as to the existence of liens not recorded on the books.

As a rule, the auditor will rarely encounter any unsatisfied liens for unpaid taxes or for mechanics' liens, because these are generally cleared from the

records when a company acquires the property to which they were originally attached. Judgments are more common, but their presence does not necessarily indicate any weakness on the part of a client; the client may have permitted a claim against him to be reduced to judgment because he disputes the claim and proposes to fight it. Nevertheless, even tho the claim be a disputed one, the auditor should insist that a proper reserve be set up for it, or he should note the claim in a footnote on his balance sheet as a contingent liability.

In connection with liens generally which may or may not appear on the books, the auditor should carefully peruse the minute book, if his client be a corporation, because in all probability, if there are any liens, they will be mentioned and their nature will be disclosed therein. Liens not disclosed in the minutes or by a conscientious search among public records cannot be discovered by the auditor unless, perhaps, he makes an extended investigation of the client's entire correspondence. This is hardly feasible except under extraordinary conditions or where there is a clear indication that the client is attempting to conceal facts about his business or his liabilities. Even in the latter case, the auditor may not be able to gain access to the private files; he can, however, in a measure, cover himself in a trying case by qualifying his report to the effect that his findings are based on a limited use of the correspondence files and that he was denied access to certain other files, books, or documents.

CHAPTER XVII

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Capital Stock and Proprietorship

The Capital Stock Account is not a liability; it is an indication of proprietorship. It cannot be considered a liability even in case a company goes out of business voluntarily or as a bankrupt. It then is, as before, a proprietorship account, and provides the basis for distributing the assets of a company which remain after all liabilities have been paid.

Proprietorship accounts correspond to the following forms of organization:

Individual proprietorships.
Partnerships.
Corporations.

The accounts indicating proprietorship in any and all these forms of organization are the same in essence and nature. They vary merely as to divisibility and transferability.

An individual proprietor finances himself by utilizing his own funds or credit, and the entire investment and the profits therefrom are his own; he is therefore fully responsible as an individual for all his acts and all his liabilities. If, thru unfortunate business operations, his funds invested in the business *per se* are insufficient to satisfy his creditors, his

other personal assets, beyond his legal exemptions, may be drawn upon. This feature has a strong element of justice in it, for his personal estate is very often built up out of the profits he withdraws from his business. Had these profits been retained in his business, sufficient funds would probably have been there available to liquidate his obligations to business creditors.

These considerations are of equal weight in connection with partnerships, except that in a partnership the responsibility is generally divided. Tho a corporation exhibits a status of limited liability on the part of the individual stockholders, it is nevertheless somewhat restricted in its activities and in the distribution of its earnings; thus to all intents and purposes, provided the management is honest, very considerable safeguards are provided for the creditor. Again, if certain acts of corporate officials are proved irregular or *ultra vires,* recourse may be had against such officials, against the board of directors, or in some instances even against the individual stockholders. The activities of the individual proprietor and of the partnership are not so closely regulated by law and therefore in a sense are somewhat freer; the price of this larger freedom is the individual responsibility for the debts of the business enterprise.

The proprietorship account of an individual in business is designated as his "Capital Account." Since all the profits of his business are credited to this account or his losses charged thereto, the Capital Account, provided his assets and liabilities are all properly stated, represents his net worth—that is, the combination of his original investment (or additions thereto and withdrawals therefrom) and

the accumulated profits or losses from his business operations. The practice of auditing the accounts of an individual in business is therefore no different from auditing the accounts of a partnership or a corporation, as far as the verification of the assets and liabilities is concerned. The Capital Account, however, must be analyzed so as to show its status at the beginning and the changes that have occurred due to capital additions, withdrawals and accretions, or deductions because of profits or losses respectively. Withdrawals may be either a reduction of capital invested as such, or a distribution of accumulated profits, even tho the profits are merged with the Capital Account; at any rate, a withdrawal is a reduction of net worth, whether it infringes on actual capital invested as such or on accumulated profits only. The distribution of profits as dividends out of a corporation's surplus affects the net worth of a corporation in exactly the same way, irrespective of the fact that the accumulated profits are shown in a separate account.

Partners' capital accounts reflect a condition of divided ownership, and a number of restrictions may therefore appear in connection with their powers of withdrawal. It is consequently imperative that an auditor secure a copy of the articles of copartnership as well as copies of any supplementary agreements made between partners. The articles of copartnership generally contain the provisions as to distribution of profits, salaries allowed the partners, additional investments, interest on capital accounts, etc.; therefore in addition to verifying the regular assets and liabilities, one must inspect closely all the accounts of the individual partners and their specific capital accounts.

By holding the members of a partnership to a strict adherence to the provisions of the articles of copartnership, the auditor can very often iron out many petty differences which sometimes grow eventually to sufficient size to wreck or dissolve the organization.

The Proprietorship Account of a partnership stands in an intermediary position with reference to the individual proprietorship and the corporation. It presents the status of divided ownership found in the corporation, but retains the feature of individual responsibility as to business debts found in the individual proprietorship. In fact, some partnerships (namely, the limited partnerships and those in which we find share-capital) are only one short step from real corporate organization. Again, certain corporations, such as national banks, seem to go back one step towards partnership in that the law makes the shareholders responsible for twice the amount of their holdings in case of liquidation, when the realization from the assets does not suffice to meet the obligations. The partnership resembles the individual proprietorship in the partners' capital accounts, since the profits are credited to each partner's capital account, thus making the net worth the sum of the partners' capital accounts.

It is in the corporation that we first find a clear distinction between the capital furnished by the individuals or stockholders, and the accumulated earnings or Surplus Account. Immediately upon this distinction, there disappears the principle of individual responsibility except to the extent of each stockholder's investment in the corporation or his subscription contract. The corporation assumes the status of an individual in the eye of the law and it is the corporation

as such that may sue or be sued; the shareholder cannot lose more than he has invested (except in special corporations where his liability is increased by law), and as an individual he is not liable for acts of the corporation unless these be *ultra vires* or otherwise illegal. The other advantages of corporate organization are clear. Corporate existence does not terminate with the death of any of the incorporators or stockholders; consequently it has that great advantage of continuity which is rarely found in a partnership. The ownership may change and yet the corporation will go on; this feature is its second strongest advantage expressed by the transferability of the evidence of partial ownership—the share of stock. The third advantage, already suggested, is the very limited liability of the shareholder. The loss to the shareholder, if he is not an executive of the corporation, is found in the relinquishment of control. An individual in business has full control, a partner a divided control, and a shareholder practically relinquishing control vests it with a management which he and others have put into power for a certain period. His power to control is exercised only at the annual meeting when the election of officers occurs, and from that time to the next election his control is practically nil unless perchance he happens to be elected to office.

The capital stock issued is the proprietorship account of a corporation, and the shares indicate the distribution or division of ownership. To verify the outstanding capital stock, the auditor must examine the stock registers or ledgers and the stock certificate books. These records should then be compared with the lists of stockholders. Where the corporation maintains a transfer office or if some other organization

acts as transfer agent, the auditor should obtain a certificate from the transfer agent as to the capital stock outstanding. If the audit be the first audit, the articles of incorporation should be examined so that the entire authorized capital stock may be determined. The auditor's balance sheet should show the entire authorized capital stock (subdivided into classes if there be more than one class), the amount unissued, and the amount that may remain in the treasury of the company.

Treasury stock must not be confused with unissued stock. It should appear among the assets in the balance sheet. Treasury stock represents an actual value received by a corporation either thru purchase or thru donation; it therefore is part and parcel of the elements determining the net worth of the corporation. It is an error, therefore, to deduct treasury stock from the outstanding capital stock shown on the balance sheet, for the net worth section of the balance sheet would be thereby understated. Unissued stock, however, never represents value, and should always be deducted from the authorized capital stock, thereby showing the capital stock outstanding. The shares of stock in the treasury, if any, must be examined by the auditor, and he must also know the uses for which it has been provided; the certificates should be endorsed over to the corporation or to a trustee for the corporation, and in cases where the stock was donated, the stock should be utilized in accordance with the intent of the donors. If the stock was purchased outright by the corporation, it should be regarded as an investment, and it may be disposed of from time to time for any fit purpose like any other asset. The auditor, of course, should comment on any sale of treasury

stock made at less than cost, for such a procedure would be poor financing indeed.

It is not sufficient for the auditor merely to schedule the outstanding capital stock; he must also assure himself that all stock issued has been fully paid for in either cash or property. He should also examine into the status of any issued stock which has not been fully paid, and should obtain from the subscribers certificates in which these admit their liability to the corporation. In the case of cumulative preferred stock, altho no actual liability exists for dividends until profits have been made and dividends declared, a note should appear in the balance sheet or as a footnote thereto indicating the amount of dividends accrued. These, of course, would have to be paid in full before any distribution could be made to common shareholders.

SURPLUS

The Surplus Account of a corporation is the second element composing its net worth. It should always appear as the last item on the balance sheet. Ideally it should represent accumulated profits only or necessary adjustments thereto. Thus, for example, if a company had not provided adequate depreciation during past years, a charge to Surplus Account and a credit to the Depreciation Reserve would be a necessary and proper adjustment, for the operations of past years could not be reopened even tho for proper comparisons they should be restated. The auditor's first duty is, therefore, to secure a detailed analysis of the Surplus Account. The balance at the beginning of any period represents the accumulated profits of prior periods and should be compared with the amount shown on the company's

balance sheet and the general ledger account. Normally, there should be no debits or credits to the Surplus Account during the year except for dividends declared and charged thereto. All minor adjustments, which as a rule occur every year, should be absorbed thru regular operating accounts. Accretions to the account on account of revaluation of assets should be eliminated and placed in a special Surplus Account; profits from the sale of capital assets should go into this same account. In fact the regular Surplus Account should represent accumulated, undivided net profits from operations only. The ideal Surplus Account would have one credit or debit each year; this would be the amount placed there by closing the annual Profit and Loss Account. There would, of course, be found the additional charge or charges during each year for the distribution of the surplus as dividends, if any were declared.

The Surplus Account represents at any time the excess values of a business over original investment, provided all operations of prior periods were correctly figured, the original capital stock was taken at par, and the assets and liabilities are properly stated. Adjustments to surplus should therefore be confined to those which are necessary to reflect truly the results from past operations, or to those which will assist to make more accurate expression of the company's net worth; whether such adjustments should include revaluations of fixed assets is still a debatable question, but the weight of evidence seems to favor either a plan of omitting such revaluations entirely, or, if included, of creating for them a special surplus account. A conservative management should not credit the entire gain thru revaluations to the Surplus Account; at least a part thereof should go to increase

the Reserve for Depreciation so that the latter account may represent the provision for renewing and replacing the fixed assets at their increased reproductive cost.

An auditor should always make a distinction, where it is not already made, between actual surplus and book surplus, for the latter may often contain items which do not increase the net worth of a business or reflect the accumulated results of operation. Actual surplus should always represent the increment of true gain whereby the net worth of the corporation has been increased, and it is the auditor's function to make sure that this increment is correctly stated. If he covers in his audit all the assets and liabilities and is certain that they are as presented and fully included, he may be sure that the Surplus Account is correct even tho he may not be familiar with the mode of its construction in the past years. It becomes a further duty then to analyze it, even to the date of its inception, if necessary.

The Surplus Account represents an increase of net worth over the par value of the capital stock outstanding, so that the sum of the Capital Stock and the Surplus Account, under normal conditions, represents the actual value of the capital stock. Every cash dividend paid represents a decrease in net worth, because the asset cash is reduced and the actual value of each share of stock is reduced in proportion. A stock dividend declared out of surplus, however, in no way affects the net worth of a corporation, because it subtracts nothing from the property of the corporation; it merely subdivides the interests of the shareholder, whose investment is worth no more than before the stock dividend declaration. The United States Supreme Court has ruled in connection with a suit

brought under the 1913 Income Tax, that stock dividends represent not a distribution of income but a mere change in the number of shares issued. The corporation does not part with any value, nor does the shareholder receive any value; the shareholder has more shares of stock, but the value of the larger number of shares taken together is no greater than the value of the fewer shares he held before. The Supreme Court therefore held that stock dividends (at least as far as the 1913 Income Tax Law is concerned) are not income and are therefore not taxable as income.

This important decision may lead to additional suits under the 1916 and 1917 Income Tax Laws, and the chances are that stock dividends will be ruled out as taxable income. We should not forget, however, that if surplus represents accumulated profit, the division of that profit in additional shares of stock must represent an interest of the shareholder in the profits of the corporation. When such shares are sold later on by the stockholder, the profit increment of the shares should be taxed as provided by the law, because the shareholder then certainly receives his share of the accumulated profits of the corporation; the sale price of his stock is made up of the original cost to him and a proportion of the accumulated profits of the corporation, it being here assumed that the sale price is fixed by the net worth of the corporation.

PROFIT AND LOSS ACCOUNT

The Profit and Loss Account is in reality no account at all. Technically it is the expression of all the operating accounts. It is merely a medium for closing the operating accounts, and it should be no more.

Unfortunately the auditor quite often finds a so-called "profit and loss account" in the books of some concerns which is generally a nondescript dumping ground for items which some unintelligent bookkeeper cannot classify. The very existence of such an account is an argument for its elimination, because any expense or income which is a profit and loss item (that is, a current period item) should be posted directly to some expense or income account even tho a new account may have to be created therefor.

As an account on the general ledger, the Profit and Loss Account represents the medium for closing the revenue or nominal accounts at the end of each fiscal period. The balance in the account will therefore represent either the profit or the loss for the closed period. It is merely a summary without any attempt at analysis of the real Profit and Loss Account, which is the analytical statement of a concern's operations during a certain period. This is composed and constructed in a logical way of all the accounts representing income and of all the accounts representing expense. The balance in the general ledger Profit and Loss Account will be closed into Surplus, into Surplus and Undivided Profits, or into the latter account only, depending upon the action of the board of directors. In a partnership or an individual proprietorship the profits or losses would be transferred to the partners' or the individual proprietor's capital accounts respectively. A corporation, however, might wish to place some of the profits in a surplus not available for dividends, and another portion in an Undivided Profits Account to be used for the declaration of dividends. In any event the account should be closed into a Surplus Account at the end of the period and as the

final closing entry for the period. If only one surplus account is used, the balance may at once be transferred to surplus for dividend declaration, for permanent use, or for both as the case may be. Dividends may, of course, be declared out of one surplus account or out of an undivided profits account. Or, a surplus account constructed out of a period's net profits, may be subdivided into surplus available for dividends and permanent surplus, even after the Profit and Loss Account balance has been closed into it.

The auditor must, of course, be sure that dividends declared are out of surplus or a portion of surplus reserved therefor, and that the declaration does not infringe on the capital of the company. Of this he can be sure if he has satisfied himself that the net profits are real and that the balance sheet is correct, even tho the dividend declaration may more than absorb the net profits of the period audited and may encroach on the accumulated profits (surplus) of prior periods. Dividend declarations are not limited to the most recently accumulated net profits, but are limited by the entire surplus (accumulated profits) and must not be out of capital. That is, they must not reduce the net worth of a business beyond the amount of the outstanding capital stock. It is interesting to note here that altho a stock dividend encroaches upon the surplus account, it insures to a company a larger net worth which cannot be encroached upon by future cash dividend declarations. Also in reality it assures to a company the use of a larger capital investment; the corporation parts with no value whatsoever, and the stock dividend insures it in the use of that amount of surplus which it need never withdraw from the business.

CHAPTER XVIII

THE AUDIT OF BALANCE SHEET ACCOUNTS (Cont'd)

Contingent Liabilities and Their Treatment in an Auditor's Report and Statements

There has been a great deal of discussion among public accountants as to the proper treatment of contingent liabilities in the auditor's report and statements. The controversy is centered about the three methods of expression, all of them in common use. These are:

1. The inclusion of the contingent liability "in short" in the body of the balance sheet.
2. The statement of the contingent liability as a footnote to the balance sheet.
3. The inclusion of the contingent liability in the balance sheet but as a deduction from an asset (at least with reference to Notes Receivable Discounted).

The inclusion in short should appear on the balance sheet either immediately after the total liabilities or at the very bottom under the Surplus Account. The two methods are herewith illustrated:

METHOD I

Current Liabilities:		
Notes Payable	$........	
Accounts Payable	....	$........
Fixed Liabilities		....
Total Liabilities		$........

Contingent Liability for, etc.	$........	
Net Worth:		
Capital Stock	$........	
Surplus, etc.	....	....
		$........

METHOD II

Current Liabilities:		
Notes Payable	$........	
Accounts Payable	....	$........
Fixed Liabilities		....
Total Liabilities		$........
Net Worth:		
Capital Stock	$........	
Surplus, etc.	....	....
Contingent Liability for, etc.	$........	
		$........

The double underscore below the amount of the contingent liability will indicate that it does not enter into the footing of the balance sheet itself.

When the contingent liability is indicated as a footnote, auditors generally state it as follows: "There is a contingent liability of $——— represented by Notes Receivable Discounted (e.g.)." The footnote would be prefaced by an asterisk corresponding to the reference asterisk following the word "Liabilities," the caption for the liability section of the balance sheet.

Some accountants hold that a contingent liability for (let us say) Notes Receivable Discounted, is so remote that it should under no circumstances be included in the balance sheet itself; they are all agreed that

it must be shown in connection with the balance sheet, however, and that it should be indicated in short or by a footnote as above described. To show it in the balance sheet itself, in their minds, would mean the inclusion of the Notes Receivable Discounted as an asset and a contra inclusion thereof on the liability side. Such procedure is neither necessary nor desirable, because the entire Notes Receivable, including those discounted, may be shown in one lump sum. The Notes Receivable Discounted can be deducted therefrom, thus bringing out distinctly the total amount of notes accepted by the company, the amount discounted, and the net amount outstanding not discounted. By deducting the Notes Receivable Discounted in this way on the asset side of the balance sheet, one will have a balance sheet showing no larger volume of assets or liabilities than the one constructed by the other methods heretofore enumerated, and the contingent liability will need no extra comment. As long as the contingent liability is directly connected with an element of the business which is reflected in the accounts, it appears to be the best practice to relate the contingency to the account thereby affected.

But no matter how a contingent liability is expressed by the auditor in his balance sheet and report, it is imperative that it be expressed or noted and that all contingent liabilities be disclosed. Contingencies take other forms than notes receivable discounted. A company or individual may be a guarantor by either indorsement or contract. The auditor should inquire of the officers of a company or of the partners or individual in business, as to whether any such guaranties or indorsements exist and whether any security is on hand as protection to the business. If the part-

ners, individuals, or officers of a corporation are interested in any other companies, such an inquiry should be very searching. The minutes of a corporation should also be closely scrutinized in this connection. To fix the contingent liability for notes receivable discounted at the bank, the banker's certificate should be called for. It is also recommended that certificates be obtained from the beneficiaries under a guarantee so that the true status of the whole transaction may be determined; an officer of a company may not always tell the whole truth and, therefore, the guarantee may be more of a real liability than a contingency.

Unfilled contracts for materials, etc., in excess of current needs, tho not in the ordinary sense a liability, should receive comment on the auditor's balance sheet as a footnote and in his report; these contracts may be so large and may call for payment at such an early date that the current assets of a concern may be seriously menaced thereby or may be entirely insufficient for payment. The auditor should therefore in every audit call for the unfilled contracts or purchase orders so as to know that these are merely normal and that they do not jeopardize the financial status of his client.

The auditor should make a footnote on his balance sheet of any current assets that have been hypothecated. Sometimes all or some of the chattels, or "choses in action," of a company or business may be hypothecated to secure a creditor or money lender; such a condition must be clearly revealed by the auditor, because other creditors should know the real value of their claims. The minutes of the corporation should reveal any hypothecation of this character,

because a resolution of the board of directors would be necessary before such hypothecation could occur.

It was mentioned before that there is a strong tendency on the part of some public accountants to regard certain contingent liabilities as very remote, and they have therefore concluded that a mention thereof in a footnote or the inclusion thereof in short in the balance sheet is the strongest expression of which the contingency is worthy. Any auditor who has been fortunate enough to investigate the accounts of bankrupts realizes fully the dangers of such doctrines, for he generally has found that in many instances the bankruptcy itself was occasioned by contingent liabilities that became real. A note given in settlement of an open account may in many instances indicate a weakness on the part of the maker, and if the holder discounts such a note there may be a very strong contingent liability created which may be anything but remote. In such a case it is certainly preferable to carry the note receivable discounted on the books so that the concern itself may have before it plain facts which should not be overlooked. A very thoro analysis of the notes receivable discounted should be made; many of these might represent notes that have been renewed a number of times, and they may therefore be actual liabilities. An adequate reserve had better be set up for such notes, because the reserve for bad and doubtful accounts, as a rule, does not provide for such contingencies.

It is essential in connection with any corporation audit that the auditor insist on seeing the minute book. As a rule, every item that is unusual and also the contingent liabilities will be revealed thru this source.

If an inspection of the minute book be denied the auditor, it is his duty to mention that fact in his report and in a footnote to his balance sheet; he should follow the same course with reference to any other significant records which his client refuses to turn over to him, indicating if possible in both instances the reasons advanced by the client for denying access to such records.

CHAPTER XIX

THE AUDIT OF INCOME ACCOUNTS

Many auditors are so engrossed with the task of assuring themselves that all expenses have been properly accounted for and that all assets and liabilities are correctly stated in the balance sheet, that they overlook to a very large extent the income-producing accounts, or at least dismiss these accounts rather arbitrarily, on the assumption that every business, being interested in making a good showing, will on its own initiative report its income fully. This is very true, but the income may be reported too fully! Tho an inflation of income should normally be discovered thru the relationship of balance sheet accounts to income accounts, the general books may be so well "doctored" that the balance sheet accounts appear flawless in spite of very thoro inspection.

An analysis of the income accounts during a fiscal period and comparisons of these with corresponding months of prior periods may at once indicate "the black gentleman in the woodpile." Thus, if the sales of the last month of the period audited were much in excess of the sales of the corresponding month of the prior period (assuming that no inflation occurred then), the excess may be the result of including during the period shipments made in the subsequent month and set up as accounts receivable.

There are two methods of detecting such a fraud, both of which are fairly conclusive. The first is the inspection of the shipping records, thru which the shipments or sales for the last month of the period may be proved, and the second is the analysis of the inventory or production records as the case may be; however, if the inventory has been "doctored," a combination of the two methods may be necessary.

Where there are cash sales, these may be inflated by running thru receipts from accounts receivable as cash sales, at the same time increasing the accounts receivable for sales made subsequent to the close of the period. This fraud can readily be uncovered by checking the receipts per cash book against the bank deposit slips, supplemented, if necessary, by circularizing the customers; the last month's correspondence file moreover would, as a rule, contain the remittance letters or blanks, and these would afford additional proof. In most establishments cash sales are also evidenced by cash slips of some kind; these will afford the very best check on the cash sales and the consequent deposit of cash.

The inflation of sales thru the accounts receivable may be detected most surely by circularizing the customers themselves and by asking for a direct verification to the auditor of the balances per books at the end of the period. In a retail, jobbing, or wholesale business, the shipments for the audited period may be proved thru the final actual inventory and the relation thereof to the beginning inventory and the purchases within the period. Unless the quantities of goods reported on hand at the end of a period have been incorrectly or falsely reported, the shipments or sales should correspond to the following formula:

Beginning Inventory + Purchases — End Inventory = Sales or Shipments (in quantities).

In a manufacturing business the formula for sales would have to be modified as follows:

Finished Inventory at Beginning + Production — Finished Inventory at End = Sales (in quantities).

The use of these formulæ combined with the other tests discussed above should afford all the tools necessary for a detection of sales inflation.

Manufacturers' Income Accounts

While it is true that the principal and in many cases the only source of revenue in manufacturing establishments is thru the sale of finished or manufactured commodities, the determination of such sales is beset with somewhat more difficulty than the establishment of sales in a retail, wholesale, or jobbing business; in the latter cases the sales commodities are identical with the commodities purchased, and no change in their form occurs. A manufacturer, however, rarely sells his purchases; he converts them into finished commodities which represent either an entire disappearance of the purchases as raw material, or a combination of these into an entirely new or at least modified product. To account properly for quantities sold implies an investigation into the process of production wherein the raw materials are converted into finished commodities for sale, and wherein there may appear many elements of shrinkage which may or may not be avoidable.

The sales of a manufacturer may be proved in

quantity, after making allowances for spoilage and shrinkage, by the use of the following formulæ:

(1) Raw Material at beginning of period + Purchases — Raw Material at end of period = Raw Material content of production (reduced to formula content in finished product if possible).

(2) Raw Material content of production + Direct Labor + Factory Overhead = Total Cost of production (to be divided into quantities of finished product, by types or on a formula basis).

(3) Finished Product Inventory at beginning of period (in quantities, by types) + Production (in quantities, by types as above determined) — Finished Product Inventory at end of period (in quantities, by types) = Sales of Finished Product for the period (in quantities, by types).

The application of these formulæ combined with others heretofore discussed under the caption of "Inventories," should afford ample proof of sales in quantities by types and of beginning-and-end inventories. There is no positively correct method of proving sales on a value basis. The relation of sales value to costs and to gross profits is a rough proof, but cannot be considered conclusive, especially when the auditor is confronted with a period wherein the sales prices or the costs of production have fluctuated appreciably.

Manufacturers are coming daily to a better realization of the need for proper general accounting systems and cost accounting systems. Wherever such systems are in force, the auditor will generally find that the task of verifying the income from sales is a simple one; nevertheless he should take the precaution of examining the sales records in order to satisfy himself that they were properly closed on the last day of the period covered by his audit. He should therefore make a comparison of the shipping records with the sales records. If a concern wishes to inform its banker or creditors that it is in a healthy condi-

tion as far as sales orders are concerned, there is no objection to the addition of a statement of the bona fide orders on hand at the end of the fiscal year; in fact, it is recommended that such a statement be included. However, if this be done, the auditor should compare the outstanding orders with those on hand at the end of the previous fiscal period, and should make sure that there is no loading. The orders might very conveniently be grouped into orders for immediate delivery and for future delivery, with a general division of future deliveries by months.

CHECKING MANUFACTURER'S SALES

In reporting sales, the auditor should, in his profit and loss statement, indicate first the gross sales; from this he should deduct allowances, returns, out-freight, and possibly cash discounts.

There is a tendency on the part of some public accountants to view cash discounts as an expense of financing rather than as a deduction from sales, and there is considerable justification for treating them in this manner. It is an almost universal practice to regard cash discounts on purchases as a financial earning rather than as a reduction of purchase price. Why then should discount allowed on sales accounts, which is a bid for funds, be treated as a reduction of selling price? In fact, the discount taken on purchases may be made possible by the funds obtained by permitting a discount on sales; the one is a saving dependent upon the availability of funds, the other is an inducement to obtain these funds quickly. An auditor who treats discounts on sales as a financial or general expense rather than as a deduction from

sales, will be free from criticism, especially if at the same time he considers discounts taken as a general or special revenue item. The two accounts may appropriately be set off one against the other.

In the audit of all sales accounts the sales should be compared with the orders for the purpose of determining first, whether all orders have been filled, and second, whether the sales have all been accounted for. Tampering with the sales account should readily be discovered by means of such comparison. All orders are presumably to be filled, and anyone tampering with the sales accounts would probably either not have access to the order books or not think of altering these as a precaution to cover a manipulation of the sales records. If such a precaution were taken, then the salesmen's own records should be examined; the salesmen's orders and, in fact, all sales orders should be numbered serially so that every order may be accounted for by number. If the auditor works from the sales orders to the sales and finds certain orders unfilled, it is his duty to discover why they have not been filled. His request for information should first be directed to the sales department, which should be able to produce a cancellation order or letter. If the inquiry must be pushed further, the auditor should correspond with or interview the salesmen and finally, if necessary, should take the matter up with the customer himself. The auditor, as before suggested, should also consult the shipping records. The application of any or all of these methods should establish beyond any question the correctness or incorrectness of the sales account.

Cash sales of the products of a manufacturing concern are not customary. There may be cash income, however,

from other sources. In almost every industry there is considerable scrap or offal which from time to time may be sold for cash. Probably the best way to account for such income, which is dependent upon production, is to obtain from the superintendent or the manager an estimate of the percentage of such scrap to production. This matter may have to be approached from the quantity, rather than from the value, side; i.e., the percentage of scrap resulting from the use of certain quantities of raw material may have to be determined. Whether such scrap is sold for cash or on time does not affect the method employed. The income from the sale of scrap, if resulting from a necessary operation in production, should be credited against the cost of sales; if representing the sale of obsolete material or tools, it should be credited to a Miscellaneous Income Account or to the Asset Account if the latter is still on the books.

Income Accounts of Wholesalers and Retailers

The verification of income from sales in wholesale and retail establishments is almost entirely an inventory matter. The sold commodity is identical with the purchased commodity, so that if the inventories at both ends of a period are correct and the purchases have been properly accounted for, the sales at cost will be represented by the following formula:

Beginning Inventory + Purchases — End Inventory = Sales (at cost).

Tho this formula proves the cost value of the goods sold, it is not conclusive as a test of sales unless quantities are used instead of values and unless the quantities thus determined are accounted for in the sales records.

It should be remembered that the sales price is something entirely different from the cost value of the sales. In proving the Sales Account, the auditor should procure the sales price lists for the various types of articles sold and should, if necessary, inspect the individual sales entries in order to assure himself that the sales price was charged in full. Where there have been no changes in selling price during a period, or where it may be averaged, a total proof of the Sales Account may be obtained by multiplying the total quantities of the various types of commodities sold by the unit selling price. This method may not give the exact result, but if the difference is small, the auditor can feel fairly confident that the Sales Account is properly stated. He should, however, supplement the method just recommended by a fair test of the individual sale charges.

The test of sales thru quantities by using the beginning-and-end inventories and purchases as bases, implies the use of a "perpetual" inventory system. The auditor may be of great service to his client by recommending such a system where it is not already in use. It is almost impossible to prevent stock shortages in wholesale and retail establishments without detailed inventory control; a perpetual inventory system in these concerns becomes truly an investment, for the cost of its operation will in almost all cases effect a saving which will be a handsome return on the outlay. Shrinkages will be reduced to a minimum and these can be accounted for quite fully.

The cash sales of a retailer form a very large per cent of his entire sales. It is therefore necessary to use every precaution in verifying this source of revenue. In the larger stores the internal check on

the cash and charge sales is as a rule so complete that an auditor cannot, because of the great volume of detail, do more than check the summaries prepared by the store's auditing department. He must see, however, that all the summaries have been entered properly in the general books, and he should make a number of tests of the summaries; this can be done by checking the cash and charge slips for a number of days during the period to the summaries. In other large retail establishments where there is sufficient internal audit the same procedure should be followed. In smaller retail stores, where the internal check is not extensive, the auditor must make some thoro tests of the cash sales and, if possible, relate these and the charge sales to the inventories.

CHAPTER XX

THE AUDIT OF EXPENSE ACCOUNTS

The audit of Expense Accounts is either quite simple or extremely difficult, according to the kind of records kept by the client. Where there is a thoro analysis of expenses thru a voucher system, with all bills attached to the vouchers, the audit of Expense Accounts is comparatively simple. Where, however, charges to Expense Accounts come thru the cash book, journal, and possibly other sources, with expense bills filed alphabetically after payment, it is an enormous task to verify the propriety of the charges; in fact, unless the client agrees to pay a considerable fee, it will be impossible to secure an entirely satisfactory audit. Sometimes the auditor would do well indeed to advise his client to forget the past and to put in a proper system of accounts. An unsatisfactory audit due to poor accounting in a client's office is worth little to the client or to the auditor; it is often money thrown away which could be put to better use by engaging the auditor to put in an adequate system. Of course, where there is suspicion of defalcation or other irregularity, an audit should be made and should be limited as a special investigation. Also, in some instances it should be made in order to show the client how badly and inadequately his accounts are being kept. Some people need rude awakenings.

Audit of Expense under the Voucher System

Where the voucher system is in use, all expenses payable are distributed in the voucher register. This distribution may be in detail or to controlling accounts. In a small business the entire distribution can generally be shown in the voucher register itself, but in a large enterprise it is generally found necessary to charge all expenses to a few controlling accounts in the voucher register and to supplement the register by an analysis ledger or sheet. Numbering the accounts is found very convenient and efficient in the latter case, the analysis ledger showing both numbers and names of the accounts. A convenient numbering scheme is to have all assets prefixed by the number "1," all liabilities by the number "2," all income accounts by the number "3," and all expense accounts by the number "4." A voucher register supplemented by an analysis ledger would therefore need few columns, for all details under the various captions would be expressed in the analysis ledger.

In examining vouchers, the auditor should make sure that they are properly approved for payment, and that the prices on the bills have been checked and the extensions verified. He should instruct his assistants to test a number of the extensions. The important task in examining the vouchers is to study the accounts to which they are charged; the nature of the bills attached to the vouchers will as a rule give sufficient information so that the distribution may readily be verified. An inventoriable purchase or an addition to Property Account can be readily detected, but there is a "twilight zone" where advice from the purchasing agent or others may be necessary;

bills for repairs, renewals, replacements, and minor additions to plant are sometimes extremely difficult to classify, and the auditor is forced, in many instances, to "take somebody's word for it." He can, however, protect himself to a certain extent by comparing such charges, as totals, with the like charges for other periods. Because of heavy Federal Income Taxes there is a tendency on the part of some to load the expense accounts, with the result that many charges which were formerly capitalized or charged to reserves for depreciation are now put into operating expenses. Such practices will continue just as long as governments continue to tax profits.

In comparing vouchers with the voucher register it is hardly ever necessary to cover the entire period in detail. Exhaustive tests should be made for a number of months, scattered thruout the year. The voucher, with its bills attached, should first be compared with the voucher register entry (in the Vouchers Payable column), and a check mark in colored pencil should be made to the right of the amount. The bills attached to the voucher should then be examined and the distribution to the expense account, or accounts, or to the capital account should be verified. This examination must be analytical, and the auditor or his assistant must here display good judgment and a general knowledge of business operations so that there will be no question as to the propriety of the distribution. The distribution should be checked in the voucher register and the analysis ledger (if there be one) as well as on the voucher itself; they should agree. The voucher itself is the approved distribution, and the voucher clerk is supposed to carry that

same distribution on the register from which the accounts in the ledger are constructed.

The points to be observed in vouching may be summarized as follows:

1. The charge must be correct as gleaned from the nature of the bill or bills.
2. The voucher must be properly approved as to distribution and the bills must be checked as to prices and extensions.
3. The receiving clerk's original certificate should be attached to bills covering purchases. (If not attached, the receiving clerk's file should be examined and a test comparison made with purchase invoices.
4. The voucher register distribution must agree with the distribution per voucher.
5. Missing vouchers must be listed (if of sufficient value).
6. Vouchers of doubtful distribution must be referred to the proper official for clarification.
7. Vouchers fully examined, passed, and compared with the voucher register should be ticked or stamped by the auditor and replaced in the file. A memorandum of the last voucher number examined at the close of any day's work should be made by the auditor, so that no one of the office force can tick any subsequent vouchers or the voucher register without its being discovered.
8. After the vouchers have been examined, the cancelled checks in payment thereof should be compared with the vouchers and an appropriate check mark entered in the voucher register. Where voucher checks are used and the bills attached to the cancelled checks, the vouching and accounting for the payments can be performed in one operation and a combination tick may be used (as for example "vc," the "v" representing voucher examined and the "c," check compared with voucher).
9. If there are no receiving clerk certificates, the purchase

invoices should be compared (at least in part) with the stores records.

10. The auditor must satisfy himself that vouchers are made out to the creditors whose names appear on the bills, and that the checks in payment are made out to the same parties.
11. Bills permitting discounts should be compared with the discount entries on the cash book or the voucher register according to the practice of the client in this matter. Some forms of voucher registers provide a column for purchase discounts, whereas in other cases purchase discounts are taken care of in the cash book or check register.
12. Petty cash vouchers should be carefully tested, and proper receipts must accompany each voucher distributed thru the voucher register. Any suspicious looking receipts must be traced, and payment to officers or employees must be satisfactorily explained. Very often an irregularity on the part of the cashier can be discovered by passing the petty cash vouchers to an official of the concern for approval. The auditor himself cannot afford to put in too much time on petty cash or general vouching, as there are many more important tasks.
13. The auditor should have one of his assistants verify the footings of the voucher register (either in part or in whole, depending upon the extent of internal audit), and all the postings from the voucher register to the general ledger should be checked.
14. At the completion of the vouching a list of the unpaid vouchers should be prepared from the voucher register and compared with the general ledger controlling account for Vouchers Payable.
15. All journal adjustments to Vouchers Payable should be fully examined.

Audit of Expense under Non-Voucher System

The procedure outlined above is for vouching where a voucher register and system are in use, with the vouchers filed numerically after they are paid. Unfortunately, however, voucher systems are not in universal use and it is sometimes difficult to convince a client of the advantages of such systems. We cannot, of course, discuss here the relative merits of accounting systems, nor does this consideration improve the status of poorly kept accounts which nevertheless must be audited.

The auditor will generally find that where voucher systems are not in use, the payment of bills is not tied up with any system of filing the bills themselves, and that the bills are generally filed alphabetically for convenient reference use. Vouching under such conditions is beset with numerous difficulties, and the auditor should proceed according to the following rules:

1. He should call for all bills arranged according to dates of payments (whether he expects to use them all or not).
2. From the cash book or purchase record (if there be one) he must inspect the charges to the various expense, purchase, or capital accounts. He must compare the bill by name of vendor, amount, and nature with the entry in the cash book or purchase record, with its distribution therein, and with the check or cash payment. This work may be all inclusive or may be confined to complete tests covering certain periods. The auditor may possibly deem it sufficient to examine bills and payments thruout the period in excess of a certain amount.
3. He must give especial attention to the distribution of the charges, because where accounts are kept loosely

the danger of improper classification is very great. He must therefore also check the general ledger postings very carefully.

4. The amount of the various expenses during the audited period should be compared with the same expenses of prior periods in order to discover any loading or other irregularities.
5. The cash book and other records involved with purchases and expenses should be footed, and their totals should be traced into the general ledger.
6. All petty cash disbursements should be carefully analyzed and properly accounted for. Receipted bills should be demanded for all petty cash disbursements and any irregularities thoroly ironed out.

Wherever books are kept loosely, the auditor can be of great service to a client if he will make a very thoro inspection of the accounting system, report on its weakness and inadequacy, and recommend generally how the system may be improved. Any constructive advice in an auditor's report, not too freely given, makes the client feel that the public accountant is interested beyond the collection of a fee.

CHAPTER XXI

THE AUDIT OF EXPENSE ACCOUNTS (Cont'd)

The previous chapter presented the general principles involved in auditing expenses. It is necessary, however, to analyze more specifically the peculiarities of certain expense accounts, many of which are common to almost every type of business, and to outline the methods to be employed by an auditor in examining these accounts. These expenses may be grouped as follows:

1. Extraordinary Expenses Not Chargeable to Operations.
2. Deferred and Accrued Expenses.
3. Salaries and Wages.
4. Selling Expenses and Salaries.
5. Administrative and General Expenses.
6. Legal Expenses.
7. Returns and Allowances.
8. Interest on Loans, etc.
9. Freight and Express.
10. Factory Costs.
11. Bad Debts.

Extraordinary Expenses

At times, in almost every business, extraordinary expenses arise, which in no way immediately affect operations, but which must nevertheless be deducted before the surplus net profits of a period can be deter-

mined. There might be extraordinary legal expense in connection with unusual suits brought against a company. For example, several years ago a number of dissatisfied stockholders brought suit against the board of directors of a corporation, claiming that certain securities owned by the corporation had been sold at a price damaging to the stockholders. At the same time these stockholders also filed a petition for a receiver. Investigation revealed that these stockholders had previously secured an option on the securities; the option had expired, and the securities had been sold to others at a higher price than that offered by the stockholders. The company had really got a much better price than the stockholders themselves had offered, but they were piqued that the securities had not come to their hands; hence they brought suit against the directors and applied for a receiver on the claim of mismanagement. An audit proved that there was no basis for suit and that the company had been better managed than ever before in its history. However, a considerable sum was expended for legal advice in fighting the disgruntled stockholders and averting receivership.

This expense had to be charged in its entirety during the period of its incidence. It could hardly have been treated as a deferred expense, for it in no sense benefited future operations nor did it bear any relation whatsoever to operations either current or future. If anything, the good name of the company was jeopardized for a short period as a result of the suit. It would have been very inappropriate to defer any of the legal expense, for the future certainly received no benefit and a deferred item of such character would have made a very sorry showing on the balance sheet. One might think of many such unusual expenses which

must be charged out during a current year, even tho they bear no relation whatsoever to operations or the results from operations.

When confronted with any unusual expense such as the one just stated, the auditor should insist that it be completely charged off as incurred; he must, moreover, determine, from whatever sources necessary, that the entire expense has been accounted for and that nothing foreign thereto has been included in order to show up the net profits from operations more favorably. Any extraordinary expenses should be fully explained in the auditor's report, and in the profit and loss statement, they should be deducted as extraordinary expenses after the net profits from operation have been clearly shown. On a representative condensed profit and loss statement they would appear as indicated herewith:

Sales		$........
Deduct—Cost of Sales		....
Gross Profit		$........
Deduct—Selling and General Expenses:		
Selling Expenses	$........	
Administrative Expense	....	....
Net Profit from Operations		$........
Deduct—Interest on Loans and Extraordinary Expenses:		
Interest on Loans	$........	
Extraordinary Legal Expense (see p. ... of report)	....	....
Surplus Net Profit		$........

Some extraordinary charges cannot properly be deducted during the current year, but become surplus charges. Such would be a charge for obsolescence.

Thus, a machine costing $5,000.00, the life of which was estimated at twenty years, became obsolete at the end of the fifth year. It had been depreciated only to the extent of $1,250.00; then the loss due to obsolescence, amounting to say $3,000.00 (assuming $750.00 to be the scrap value), could not be charged entirely against the fifth year. Four-fifths of the $3,000.00 would have to be charged against surplus and one-fifth to the fifth year as an extraordinary charge; the entire period during which the machine was useful should bear the charge for obsolescence rather than the final year. In cases of this kind the auditor should caution and counsel his client to provide for the element of obsolescence thru the depreciation reserve. This reserve should be made sufficiently large on all equipment so that the obsolescence of any individual equipment may be covered; thus, if all machinery were estimated to have a normal life of ten years, a depreciation reserve constructed on the basis of eight years for all the machinery ought to provide fully for the almost certain obsolescence of single units.

All vouchers or payments for unusual or extraordinary items and all unpaid liabilities in connection with such items must be examined carefully and no effort must be spared in demonstrating that the liability has been fully taken care of in the accounts. In the case of law suits affecting the financial position of a client, it is the auditor's duty to review the case fully and to secure a complete knowledge of the claims of both sides. He should not be guided entirely, if at all, by the contentions of his client, for he should desire first and foremost to know the whole truth. He must be guided in his conclusions and

recommendation by the facts and by their effect upon his client's financial position or profits. He may be brought to a severe test, but such tests are the real factors which make him either a respected exponent of his high profession or a charlatan.

Deferred and Accrued Expenses

These expenses have already been discussed in their relation to the balance sheet. It is equally important, however, for an auditor to see that each month's operations are charged with the correct portions of the unexpired insurance, the prepaid interest (if any), the accrued interest, wages, salaries, commissions, taxes, and similar items. Convenient registers and records have been provided for the monthly distribution of most of these expenses and such records should be fully examined; the deferred or the accrued amounts at the end of the period must actually represent either a correct charge to future operations or a current charge payable at some future time, respectively. It cannot be too strongly recommended that all expenses be placed on a monthly basis in order that, combined with the cost of sales, the results from operations, or net profits, may be known at the end of each month. There are few concerns indeed that can afford to wait an entire year before reckoning profits.

Salaries and Wages

The auditor should call for the pay rolls covering general office and executive salaries as well as for the pay rolls indicating the wages for factory or manual labor. The office pay rolls should be approved

by some officer of the company, and all changes in salaries must have proper authorization. The cancelled checks for salaries should be compared with the pay roll book; it may not be necessary to do this for the entire period, but sufficiently exhaustive tests should be made.

The entire pay roll procedure should be investigated. Some firms still continue to show on the cash book the checks or currency made payable to each individual; this is poor practice, for it permits the members of the office force to know what their confreres are receiving and may thereby engender dissatisfaction, petty strife, and jealousies. Altho individual checks may be issued, the pay roll for office help and executives should be shown in total in the books and the cancelled pay roll checks should come into the hands of some single trusted employee, who should also prepare the bank reconciliation statements. Where salaries are paid weekly, it is sometimes difficult to keep the books on a monthly basis and the auditor will do well to recommend, in such cases, that payments be made either monthly or twice per month so that the salary expense or pay roll can readily be included each month in full.

In large establishments it is just as necessary to safeguard the office pay roll as it is the manual labor pay roll. There is just as much danger of padding in the one case as in the other. We have found that it is sometimes necessary to take an actual physical inventory of the office employees. Such practice is sometimes *apropos* in large department stores where each department manager prepares his own departmental pay roll and generally pays his employees in person. Several years ago a fairly extensive pay

roll padding was discovered by actually inventorying the employees in a large department store. The auditor in this case prepared the departmental pay rolls in detail by departments and requested each department manager to certify thereto and to produce receipts from his employees. One was rather reluctant to give his certificate, and further investigation revealed considerable padding. A certificate was not sufficient in his case; the auditor went further and actually inventoried the employees, having each employee verify the rate shown in the general pay roll book. In small concerns where every office employee is known by the manager, such precautions are of course entirely unnecessary, and the manager's approval to the pay roll will suffice.

Quite a number of industrial concerns maintain service files which form a constant record of men on the pay roll as well as of the past experiences of the employees. Some concerns employ such a system for all employees, whether in the factory or the office. A comparison of the service file with the pay rolls affords an excellent check against the latter; the pay roll is prepared by someone who has no access to the service file and who, in fact, may not even know of its existence.

Factory pay rolls for manual labor must be very carefully checked. In most modern industrial establishments the men are paid in cash and their pay is handed out to them in pay envelopes. These pay envelopes should never be filled by the same person making up the pay roll, nor should they be handed out by that person. Every pay roll should be properly audited before the men are paid. The pay roll itself should be first compared with the general time cards taken from the time clock trays, and these in turn,

where a cost system exists, should be compared with the factory time cards which record the distribution of each man's time. The general auditor or his assistants should superintend the actual paying off of the men and should tick the pay roll for envelopes handed out. Any envelopes left over should be placed in the cashier's office and checked against the time cards remaining. After payment, the time cards should be filed in the general office and should from time to time be compared with the cost records or service files.

The extent of an auditor's investigation of the pay rolls should be measured by the nature of the pay roll system. Where the system is surrounded by extensive internal checks, a number of tests should suffice; where the whole system is loose, the matter must be gone into thoroly and exhaustively, possibly even to the extent of making an inventory of the labor personnel. Fortunately one will find that, usually, the bigger the industry the larger the safeguards against padding; therefore the detailed investigations are generally confined to small, poorly organized establishments where the task of verification is limited and possible. The entire matter of wage and salary expense auditing is dependent upon the system employed by the client.

CHAPTER XXII

THE AUDIT OF EXPENSE ACCOUNTS (Cont'd)

SELLING EXPENSES AND SALARIES

Before making the necessary inspection of selling expenses and salaries, the auditor should call for the contracts of his client with the salesmen. These sometimes stipulate exactly what expenses are allowable as well as the basis of remuneration. Sales agents selling on a straight commission may not have a claim against the concern until the sales accounts have been paid in full. In other cases, commissions are graded according to the size of order and again are varied with reference to different types of goods. Sometimes bonuses are paid or are payable on excesses of sales over a fixed figure; such bonuses must be set up as a liability at the end of the fiscal period.

All of these considerations, and more, must be in the auditor's mind before he plunges into the details of selling expense accounts. He should know specifically the relations existing between the salesmen or the agent and his client, in order that he may make a just interpretation and analysis of the accounts. Compliance with contract or written employment proposals on the part of both employer and sales agent should

form the basis of the deeper analysis of the selling expenses and salaries accounts.

AUDIT OF SALARIES, COMMISSIONS, AND EXPENSE

The mechanical work that follows the gaining of this information has to do with the audit of the salaries, expenses, and commission of sales agents by means of fairly extensive tests of the salesmen's expense reports, of the commission reports or statements, and a comparison of these with the vouchers and payments issued. The salesmen should be required when sending in their expense reports to submit receipts for hotel bills paid, for livery, and for their transportation. Where mileage books are used, the salesmen should make weekly or semimonthly reports of miles used, and these should tally with the distances between towns as reported in the expense reports. Unused mileage, if of sufficient value, should be considered as an advance at the end of the fiscal period in the auditor's balance sheet; in some concerns this item runs into hundreds or thousands of dollars and must receive consideration. In many companies the salesmen are required to report on the mileage in their possession with as much care as they exercise in reporting their cash expenditures; consequently in such cases the auditor will have little difficulty in determining the value of unused mileage at the close of the period under audit. The auditor must also call for all the salesmen's expense reports handed in immediately after the close of the period, so that the accrued expenses will receive consideration. As the salaries of salesmen are usually paid once or twice a month, they should be easily verified and any accruals readily detected.

ADVERTISING EXPENSE

Outside of selling salaries, traveling expenses, commissions, etc., the principal item in the selling expense accounts is advertising expense. According to its nature advertising expense either is immediately chargeable or may be deferred. Current advertising in newspapers, magazines, or on billboards, if continuous, had best be charged at once as expense; if, however, a new line of goods is got out or a special campaign is launched, it is perfectly legitimate to defer part or all of such expenditures until returns come in. Since the auditor examines the accounts at a date sometimes considerably subsequent to such expenditures, he generally has the opportunity to know whether or not they have been successful. This knowledge should guide him in placing a valuation on the deferred charge. There is, let us remember, a general tendency on the part of the advertiser to overvalue his advertising; a new line of goods may not sell at all, and many special advertising drives have failed to go "over the top."

Regular advertising thru the medium of catalogs can be put on an inventory basis, provided the catalogs illustrate and advertise a company's standard products. The cost of the catalog issue should be charged to a Catalog Inventory Account; as the catalogs are mailed or distributed, the Inventory Account should be credited and Advertising Expense charged. The rules governing inventories should be used by the auditor in verifying the balance in such accounts at the end of the period audited, and all old or obsolete catalogs should be charged off. The large mail order houses do all their advertising by catalog; thus in

their case the Catalog Inventory Account is of the very greatest importance and deserves close scrutiny.

Administrative and General Expenses

The audit of executive and clerical salaries has already been discussed. The other administrative and general expenses consist of a great many items, chief among which are telephone and telegraph, postage, the expenses of the credit and collection department, depreciation of office furniture and fixtures, traveling and general expenses of officers, dues and subscriptions, stationery and office supplies, and a host of minor general office expenses. A thoro test of the vouchers covering these expenses must be made by the auditor, and he should secure an analysis of them for comparison with the like expenses of prior periods. He must also make sure that all expenses of this nature have been included in the accounts for the period under audit; if they have not, he should set up the liabilities therefor, always bearing in mind, however, that similar treatment must be accorded to the same accounts at the beginning of the period he is auditing. This is a good rule to follow, because even after such expenses have presumably all been discovered some additional odds and ends will still turn up. Such items may, of course, be disregarded both by the auditor and by the company, for as a rule they are inconsequential and recur practically every year.

Legal Expenses

The account for legal expenses should always be carefully inspected and the vouchers charged thereto closely

scrutinized. This account is sometimes used as a repository for unusual expenditures or for some that are open to criticism from the viewpoint of business ethics. Again the auditor must make sure that all legitimate legal expenses have been fully charged. His inspection of the minute book and other records should reveal whatever litigation his client is party to; it then becomes the auditor's duty (if the client has not already done so) to request that the attorneys send in their bills covering their entire charges to the close of the period being audited. With reference to irregularities in the Legal Expense Account the auditor must take a firm stand, and should report the account in accordance with his analysis thereof even tho such action cost him his fee.

Returns and Allowances

Credits to Accounts Receivable other than for cash, deserve the closest kind of scrutiny. Not only are such credits ordinarily an indication of careless business policy, but they are as frequently a common cover for fraud. Many bookkeepers have used this way of temporarily enriching themselves; cash collected was pocketed and the customer's account credited by journal entry, the charge being to Returns or Allowances; or at times part of the cash may have been pocketed and therefore only a partial credit passed thru the journal, making the transaction appear less suspicious. In other instances numerous journal credits for returns and allowances indicate a weak business or business getting policy. Some concerns consistently make allowances to customers merely to retain their goodwill and to secure more business; the customer soon reaches

a stage where he expects the allowance as a regular thing, and if refused he withdraws his account.

In well-organized offices, the dangers of abuse thru the Returns and Allowance Accounts are not very great, provided the company's business policy is strong. The auditor will find, as a rule, that all credits to customers for returns or allowances have been fully authorized by the proper official. These authorizations must be examined (at least in part) and in the case of credits for returns the auditor should call also for the receiving records and actually trace the return into the Inventory Account. The returns must not only be evidenced by an entry crediting the customer and charging sales, but must be expressed by an additional entry charging inventory and crediting cost of sales. Many large concerns now use return and allowance journals, in which the authorizations (which should be consecutively numbered) are entered and thence posted to the appropriate accounts. These journals should not be kept by the accounts receivable ledger clerks, but should form a part of the general auditor's records, for they are instrumental in fixing the general ledger controlling account for the customer's ledgers.

The power of granting allowances to customers and of permitting goods to be returned should be carefully circumscribed and, in fact, should be allocated to a very few individuals. These persons should make a thoro review of each case before acting, and they had better be officers of the company rather than any of those specifically interested in sales promotion, collections, or credits. Authorizations for returns and allowances should be filed numerically after entry in the allowance journal so that they may be referred to readily; a cross index will be afforded if the ledger

clerk is instructed to insert the authorization number when crediting the customer. The auditor should make a number of very thoro tests, even where the authorization system is in force, in order to be certain that there are no abuses of the power to grant allowances and authorize returns. Every allowance cuts into profits, and every return means not only a sale lost but the waste of the expenditures made in securing the order.

Interest on Loans, Etc.

Interest on borrowed money, tho not affecting net profits from operations, except in the case of financial institutions, is an expense of conducting business which decreases the amount of net profit carried to Surplus Account. It may consist of interest on bank loans, on notes given in settlement of purchase, on construction contracts, or on bonds or other fixed indebtedness. To put the case briefly, it is an expense of financing or funding a business. Interest on borrowed money should therefore not appear in the auditor's profit and loss statement until after the net profits from operations have been stated.

The Interest Expense Account may be verified in conjunction with the examination of the Notes Payable or Bonds Payable Account. In this examination the total amount of interest for which the company is liable during the year on each instrument of indebtedness should be tabulated, and this tabulation should be compared with the Interest Expense Account, with which it should agree; if it does not, then the company has probably neglected to consider the accrued interest or has failed to make adjustments between

years. The interest attached to each instrument of indebtedness during a given period and a tabulation prepared on that basis should give the correct amount chargeable during the period.

The auditor should also ascertain whether there are any interest obligations for past due accounts payable, or on loans made by officers or partners, as the case may be. Interest is also charged, and sometimes at very high rates, on unpaid judgments, past due taxes, and other liens. No audit is complete until the auditor has assured himself regarding possible liabilities of this sort.

Freight and Express

Too often the auditor passes over the charges for freight without any attention whatever, assuming that the railroad companies make no mistakes. Tho the auditor is not supposed to be a classification and rate expert, he should have sufficient knowledge of tariffs and commodity classifications to make a number of fairly conclusive tests of freight payments. Railroads and express companies frequently overcharge. The auditor should inspect closely the system of checking freight and express bills and he may safely assume that, if his client employs an experienced traffic manager, overcharges will be rare. Every freight bill should be approved as to rates and weight, and a number of bills should be examined in any event. It is important for the auditor to see that all freight paid on f. o. b. destination shipments has been deducted from the vendor's invoices. Shipments on which freight has been prepaid by the consignor must also be carefully investigated.

Factory Costs

In manufacturing plants having cost systems it becomes the auditor's duty to acquaint himself with the system in use and, if possible, to reconcile any differences that may exist between the costs as recorded by the cost department and those included in the general accounts. *A cost system that cannot be tied up with the general books is of little value.* A cost system must report the actual costs of all labor, material, and such overhead as is accurately determinable or paid, and the general books must be brought in line therewith. The overhead, based upon estimates including items like depreciation, must be furnished to the cost department by the general accounting staff, and the costs must include these estimates. A double coöperation of this kind should make the costs per general books agree with the costs shown in the cost department.

It is not within the province of this work to outline a proper cost system, nor to discuss the methods by which the records of a cost department may be tied up with the general books; but it is our duty to remind every auditor engaged in auditing a manufacturing business where a cost system is employed, that his task cannot be considered complete or worth much unless he makes a thoro examination of the cost system and its relation to the general accounts. If the two are at variance in their expression, a reconciliation must be established so that true costs may be recorded in the auditor's statements and on the books of his client.

Whether a cost system exists or not, it is the auditor's duty to verify all the accounts affecting

costs of operation and to analyze them properly. This is important not only with reference to the cost accounts themselves, but in connection with the valuation of inventories of goods in process and of finished stock. Methods of verifying these inventories have been discussed previously. The auditor should, of course, give his client whatever constructive advice is necessary with reference to cost systems and their relation to general accounting.

Bad Debts

This item of expense is so common that little comment is necessary. The Bad Debt Account either may represent the amount reserved for bad and doubtful accounts, or may be the sum of bad accounts actually written off during a period. In the latter case there would probably be no Reserve Account, altho there might be instances where accounts were charged off rather than to the reserve to take care of special cases not covered by the reserve. An account should not, as a rule, be charged off until it has been reduced to uncollectible judgment or until a report of its entire uncollectibility has been received. Until an account has been proved absolutely uncollectible it is advisable to carry it in a suspense ledger, in order that it may be kept in mind and followed up and also in order that additional shipments may be prevented. Suspense accounts must be fully reserved for, but should be carried as an asset until proved bad; at that time they should be charged off against the reserve, or to bad debts if no reserve is carried.

CHAPTER XXIII

THE ANALYSIS OF ACCOUNTS

The amount of analysis work to be performed by the auditor depends almost entirely upon the classification of accounts maintained by the client. Many concerns thru the use of analysis ledgers, or sheets, make a very detailed analysis of their accounts according to accepted classification principles. In such cases the auditor needs only to verify the analysis by inspecting the vouchers or other sources on which the analysis is based. A great deal of care must be used to see that the segregation is proper, but tests will usually suffice. The internal control is generally adequate and sufficiently intelligent so that proper analysis may be secured.

Where, however, there is little if any attempt at correct classification or analysis, the auditor may have to go to very great lengths in order to secure a properly segregated or analytical statement of income and expense. He may even find that the assets and liabilities need to be analyzed in order that they may be properly grouped in his balance sheet. The following outline will suggest the segregation or analysis of representative balance sheet and profit and loss accounts:

Assets

1. Cash.
   - (a) Cash in bank.
   - (b) Cash on hand or in Petty Cash Fund.

(c) Cash held as deposits.
(d) Working Funds and Travelers' Funds.

2. Notes Receivable.
   (a) From customers.
      (1) Age analysis of past due notes.
      (2) Renewals.
      (3) Current and not due.
   (b) From officers and employees and their status.
   (c) Notes Receivable discounted.
   (d) Notes out for collection.
   (e) Notes held for other purposes.
      (Lists of securities held as collateral.)
3. Accounts Receivable.
   (a) Customers' accounts (analyzed according to age).
   (b) Accounts of officers and employees.
   (c) Miscellaneous Accounts Receivable.
   (d) List of probable discounts.
4. Reserve for Bad and Doubtful Accounts.
   (a) Amount at beginning of period.
   (b) Amounts reserved during period.
   (c) Accounts charged to reserve during period.
   (d) Reserve at end of period and basis of construction.
5. Inventories.
   (a) Raw materials, by classes if possible.
   (b) Stock in trade (in case of retailers and wholesalers) by classes.
   (c) Goods in process and basis of valuation.
   (d) Finished goods by types.
      (All to be tied up with purchase and production records.)
6. Investments.[1]
   (a) In the securities of subsidiaries.
      (1) Date of securities and their nature (stocks or bonds).

[1] If any securities are out as collateral, this fact should be recorded. The income from the securities should always be related to the investment accounts.

(2) Total securities issued by subsidiary and percentage held by client.
(3) Dates acquired and price paid.
(4) Accrued or total income derived or to be derived.

(b) In outside securities (bonds or stocks).
(1) Dates and maturity.
(2) Interest rates.
(3) Interest received and accrued or last dividend received.
(4) Market value.
(5) Excess of market value over book value or vice versa.
(6) Movement of securities during year (thru sales, new purchases, or otherwise).
(7) Balance at beginning of period; purchases or sales and balance at end.

(c) In a company's own stock or securities.
(1) Dates acquired and price paid.
(2) Securities donated and basis of valuation.

7. Fixed Assets.

(a) Land by parcels as originally acquired and additions.
(1) Changes due to appraisal or revaluation.
(2) Sales.
(3) Balances.

(b) Buildings.
(1) Various classes and their values at beginning of period.
(2) Depreciation rates.
(3) Amounts of depreciation.
(4) Additions or sales.
(5) Loss or gain on sales.
(6) Adjustments to Reserve for Depreciation.
(7) Balance at end of period.

(c) Machinery or Equipment.
(1) Factory equipment and machinery by buildings or departments (values at beginning of period).

(2) Depreciation rates.
(3) Amounts of depreciation.
(4) Obsolescence during year.
(5) Additions or sales.
(6) Loss or gain on sales.
(7) Adjustments to Reserve for Depreciation, or because of revaluations.
(8) Balance at end of period.

(d) Office Furniture and Fixtures (treated as above).
(e) Power Plant and Equipment (treated as above).
(f) Warehouses (treated as above).

8. Goodwill, Patents, Trade Marks, etc.
   (a) Basis of valuation and beginning balance.
   (b) Rates of depreciation and amounts of depreciation (if any).
   (c) In the case of goodwill, how acquired.
9. Deferred Charges or Expenses.
   (a) Insurance.
      (1) Record of policies by numbers, companies, and amount.
      (2) Amount of premiums paid and charged to Prepaid Insurance.
      (3) Amount unexpired.
      (4) Balance charged to Insurance Expense.
   (b) Interest.
      (1) Date of loans.
      (2) Interest or discount rate.
      (3) Due date.
      (4) Amount prepaid at end of period.
   (c) Miscellaneous prepaid or deferred items.
      (1) Advertising (basis of deferring).
      (2) Catalogs (inventory reconciliation).
      (3) Bond discount (basis of deferring).
      (4) Organization expenses.

Liabilities

1. Notes Payable.
   (a) For loans.
      (1) Dates of notes.
      (2) Due dates (with notation on past due or renewed notes).
      (3) Amount.
      (4) Rate of interest.
      (5) Interest paid and payable (or accrued).
      (6) Collateral (if any).
   (b) For purchases or on contracts (same analysis as above).
   (c) To officers and employees (same analysis as above with additional notes on character of the notes and why given).
2. Accounts Payable.
   (a) For purchases, etc. (analyzed according to age; estimate of discounts).
   (b) Accounts of officers and employees.
   (c) Miscellaneous Accounts Payable.
   (d) Accrued accounts.
      (1) Wages, salaries, commissions, etc.
      (2) Taxes.
      (3) Interest.
      (4) Miscellaneous accruals.
3. Bonds and Mortgages.
   (a) Bonds.
      (1) Date of issue.
      (2) Due dates.
      (3) Amounts of issues.
      (4) Interest rates.
      (5) Total amount of interest to be charged to period divided into amount already paid and amount accrued.
      (6) Trustee.
      (7) Sinking fund requirements and practice.

(8) Security.
(9) Mortgage recorded at ....
(b) Mortgages.
(Practically same analysis as for bonds.)

Reserves

1. For Depreciation.
   (a) Buildings, machinery, equipment, etc.
      (1) List of buildings, machinery, etc., or in groups according to their uses and construction.
      (2) Balance reserved for each at beginning of period.
      (3) Rates of depreciation.
      (4) Amounts of depreciation reserved during period.
      (5) Replacements and renewals charged during period under each group of assets.
      (6) Supplementary:
         (a) Repairs and maintenance charges during period on each group.
         (b) Total upkeep charges (the sum of depreciation reserved and repairs).
2. Special Reserves (analysis dependent upon the nature of each).

Net Worth

1. Capital Stock.
   (a) Total authorized (shares and par value).
   (b) Total issued (shares and par value).
   (c) Amount in Treasury (if any) and consideration therefor.
   (d) Distribution of shares.
      (1) Outside investors.
      (2) Officers and department heads.
      (3) Employees.
   (e) Basis of distribution.
      (1) Sales for cash.
         (a) At par.

        (b) At premium.
        (c) At discount.
    (2) In exchange for property or intangibles.
    (3) As bonuses or under profit sharing arrangements.
    (4) Stock dividends.

2. Surplus.
    (a) Balance, beginning of period, and composition thereof.
    (b) Adjustments or changes during period and nature thereof.
    (c) Surplus net profits for period (as substantiated by profit and loss statement).

Income

1. From Sales or Trading.
    (a) Sources and distribution (arranged by classes or types of product or departments).
    (b) Sales by sales territories or by salesmen.
    (c) Sales by branches.

Cost of Sales

Manufacturing Costs.

(a) Materials (including "in freight" and storing charges).
(b) Direct labor.
(c) Factory overhead.
    (1) Indirect labor.
    (2) Light, heat, and power.
    (3) Repairs and maintenance.
    (4) Depreciation.
    (5) Insurance.
    (6) Taxes.
    (7) Superintendence.
    (8) Manufacturing supplies.
    (9) Other overhead.
        (Notes on system in use.)

2. Trading Costs.
   (a) Beginning inventories by classes of articles.
   (b) Purchases during period (by classes) including "in freight" and handling charges.
   (c) Inventories at end of period (by classes).
   (d) Cost of sales (by classes and departments).

Selling Expenses

1. General Sales Office Expenses.
   (a) Sales manager's salary and expenses.
   (b) Selling department salaries and expenses.
   (c) Portions of general expenses chargeable.
      (1) Telephone and telegraph.
      (2) Postage.
      (3) Depreciation, insurance, and taxes on portion of office building and office furniture and fixtures.
      (4) Light, heat, etc.
      (5) Depreciation or loss of samples.
      (6) Office stationery and supplies.
   (d) Miscellaneous.
2. Road Selling Expenses.
   (a) Salaries of road salesmen.
   (b) Expenses of road salesmen.
   (c) Segregation of expenses by territories or by salesmen to be used as a basis for estimating selling costs of sales made in territories or by each salesman.
   (d) Sample expense.
3. Branch Selling Expenses.
   (a) Salary of branch manager.
   (b) Salaries and expenses of branch salesmen.
   (c) Office expenses of selling branch (including rents, or depreciation, taxes, and insurance if building is owned by company).
   (d) Portion of general selling office expense (if prorated).
   (e) Portion of advertising expense.

(f) Total branch selling expenses (related to branch sales accounts).

4. Advertising.
   (a) By catalogs.
   (b) Newspapers and periodicals.
   (c) Billboards.
   (d) Advertising material placed with salesmen or branches.
   (e) Advertising expense related to various classes sold.
   (f) Territorial advertising.
   (Advertising costs generally should be related to sales by types of product, to territories, and to mail order sales.)

Administration Expenses

1. Executive Salaries (by departments).
2. Clerical Salaries (by departments).
3. General Office Expenses (by departments).
   (a) Postage.
   (b) Telephone and telegraph.
   (c) Office supplies and stationery.
   (d) Depreciation, insurance, and taxes on portion of office building and furniture and fixtures.
   (e) Light, heat, etc.
   (f) Miscellaneous.
4. Credit and Collection Expense.
   (a) Salaries.
   (b) Expenses.

Interest and Discount

1. On Loans.
   (a) On account of loans discounted.
   (b) On demand loans.
   (c) Total interest paid or accrued (to be tied up with Notes Payable Account).
2. On Bonds (to be related to Bonds Payable Account).

It is far from our intention to propose the foregoing outline either as all-inclusive or as adaptable to every type of business. Our object has been merely to suggest the wide range of possibilities in connection with the analysis of a few representative accounts such as may be found in almost any manufacturing, retail, or wholesale establishment. Analysis is necessary. Without it the auditor cannot prepare an intelligent statement of a concern's operation nor can he interpret the tendencies of these operations. Analysis also reveals the errors in the classifications and uncovers many items which were either intentionally or unconsciously buried; it indicates the errors of commission and of principle. As a mechanical feature, the analysis of the accounts does away with the need of verifying the ledger footings, for the sum of the various segregations appearing in the analysis should agree with the ledger footings.

The auditor will find the use of thirteen-column or even larger analysis paper very convenient and adequate. The essence of the analysis is primarily to show the component elements of the accounts, and to bring out clearly as one total the amount which is being used by the auditor in either his balance sheet or profit and loss statement. In other words, the analysis of each account should tie up with the figures used in the statements.

CHAPTER XXIV

THE MECHANICAL OR DETAIL SIDE OF AN AUDIT

The mechanical work in an audit embraces the verification of footings and postings, and vouching. The extent of this detail work will naturally be determined by the condition of the accounts examined and by the systems in use.

Footing

As a rule the following books and records should be footed by the auditor or his assistants.

1. Cash book (or cash receipts record and check register).
2. Voucher register or purchase record.
3. Return and allowance records for both sales and purchases.
4. Sales journals or records.
5. General journal (if there are postings from totals).
6. General ledger accounts.
7. Accounts receivable ledger accounts.
8. Accounts payable ledger accounts (where the voucher register has not eliminated the accounts payable ledger).
9. A number of pay rolls.
10. Petty cash record.
11. Cost records (if tied up with the general books).

It is usually unnecessary to foot all of the books included in the above-mentioned list, but fairly exhaustive tests should be made so that several months of each

period will be covered. In some instances the footings can be verified by totals and no detailed footing will be necessary; this procedure may be adopted in proving the total footings of the cash records wherever all receipts are deposited intact in the bank and all disbursements are evidenced by checks drawn on the bank. The total receipts per cash book may, in that case, be proved by the use of the following table:

Deposits per bank statements		$........
Deduct—Deposits credited by bank at beginning of period entered on books prior thereto		....
		$........
Add:		
Deposits entered on books during period (near end) credited by banks subsequently . .	$........	
Cancelled checks written back into receipts as offsets to disbursements but not issued or else not used by payee	....	....
Total receipts record footings		$........

The total disbursements per check register may be proved by using the following formula:

Disbursements per bank statements		$........
Deduct—Checks issued prior to beginning of period (outstanding at that time) cashed by bank during period (hence included in bank's statement of checks withdrawn)		....
		$........
Add:		
Checks issued toward end of period (outstanding) not cashed by bank during period but entered in check register	$........	
Checks written but cancelled prior to presentation to bank	....	....
Total check register footings		$........

Checking Postings

Posting is entirely confined to the ledgers, as the ledgers represent the final lodging place for all accounts of subsidiary records. The ledgers referred to are the general ledger, the accounts receivable ledgers, and the accounts payable ledgers. Postings to the general ledger come from the following records:

1. Cash receipts.
2. Cash disbursements.
3. Petty cash book (in some instances).
4. General journal.
5. Sales journal.
6. Voucher register or purchase record.

If all postings come thru self-balancing records and chiefly from the totals in such records, the matter of checking these into the general ledger is quite simple and should consume little time. Where, for example, a voucher register is used to record all payables of every description and where controlling columns are used, there will probably be only a few individual postings to the general ledger. These will be only those appearing in the Sundries or the General Ledger column of the voucher register; all other postings would represent monthly totals of the various controlling account columns. Where, in contrast, general ledger accounts are charged directly from the cash book or check register or thru other media, the amount of posting is greatly multiplied and the auditor's task of checking them much enlarged unless columnar analysis is provided.

Ordinarily postings to the general ledger should be checked from the source entry to the ledger; in many cases, however, it may be found easier to check from the ledger to the original entry, thereby enabling one to take each account in the ledger consecutively and to check it out completely before going to the next account. Such procedure will also remove the danger of any of the office force tampering with the auditor's ticks or of ticking accounts not examined. It will only be necessary for the auditor to make a note book memorandum of the last ledger account checked at the close of each day or whenever the ledger, being required by the client's bookkeeper, must be given up for the time being.

The postings in the accounts receivable ledgers come from the sales journals or the sales books, the cash receipts records, and the allowance and return journals. These postings should be fully tested by the auditor. Special attention should be given to the credits for allowances and returns and to payments on account rather than for specific invoices (as already heretofore indicated). The amount of work to be done by the auditor will here, as in almost all cases, be determined largely by the system of accounts in use and by the extent of internal control and checks.

If an accounts payable ledger is in use, the postings thereto will come from the invoices, the purchase record, or the allowance and returns journal. Where a voucher register is used and where the accounts payable ledger has been abandoned, it will be necessary for the auditor at least to test extensively the payments recorded against the vouchers and all journal adjustments which will affect both the individual vouchers and the controlling general ledger account.

Vouching

The vouching for disbursements and the examination of the vouchers have already received full consideration. It is to be constantly borne in mind that the essence of vouching is to verify the distribution, and to make sure that all payments are for the specific purposes indicated either by the payment or by the voucher, and that the check or the cash issued is to the party designated by the voucher or the bill as the case may be.

Nothing as yet has been said of certain subsidiary books, records, or even correspondence which should be drawn upon to verify entries in so-called "books of record." For example, tho pay rolls appear on the voucher register for distribution, or in the cash book, they should be compared with the pay roll books or records themselves; allowances and returns should be checked against the original authorizations, cash receipts, to a certain extent, against the remittance correspondence file, and payments, against outgoing remittance letters when not supported by a voucher system. Sales may in some instances have to be compared with shipping records, and purchases with the receiving and the storekeeper's files. General journal entries affecting general ledger accounts should be supported by the proper official's authorization or by journal vouchers which bear the proper approval. All this work is really checking postings, for the books of record do not contain the original entries. Many important irregularities have been discovered by going beyond the books of record and by investigating the very first entries of transactions, even tho these may have been in memorandum form only and were not tied up with the regular books.

CHAPTER XXV

THE AUDIT OF SPECIAL BUSINESS TYPES

Public Service Companies

Ever since the creation of the Interstate Commerce Commission in 1887, government control and regulation of public utilities have greatly increased, not only thru the larger powers given the Commission in 1906, but as much by the growth of state regulation of corporations of this kind operating purely within state limits. The amendments made to the Interstate Commerce Act in 1906 extended the powers of the Commission so that now steam railroads, express companies, sleeping car companies, certain water carriers and pipe lines, electric railways, telephone companies, and other concerns whose activities are interstate are under Commission rules. Wisconsin, New York, Massachusetts, Illinois, Maryland, and quite a number of other states now have public service commissions, which regulate rates, provide classification of accounts, grant franchises, pass upon bond or stock issues, and control to a greater or less degree the internal operations of the various state public utilities.

In auditing the accounts of any public utility company, the auditor serves not only the corporation; he stands between the corporation and the public, and it becomes his duty to see that the corporation carries out fully the provisions of state or national laws. If he has not already done so, it is imperative that

he become fully acquainted with the laws and commission rules affecting the particular case under investigation. If careless at all, he is not performing his duty as a professional man or as a citizen. He should reveal all acts in any way contrary to law or public welfare.

Railroads

The latest classification of accounts laid down by the Interstate Commerce Commission for steam railroads is sound from the public accountant's point of view. Thruout an audit, therefore, the compliance with classification rules must be checked and every charge to capital or income carefully scrutinized. The verification of income is of equal importance.

The principal income of railroads consists of passenger and freight earnings. Revenue from passenger traffic comes almost entirely thru local agency ticket sales; a small amount comes from cash fares collected by conductors. The report of tickets sold by station agents, which reports should indicate ticket numbers and destination, must be accompanied by the cash collections or receipted deposit slips (if local bank accounts are maintained) and should be compared with the cancelled tickets turned in subsequently. Such checks are adequately provided in the department of the auditor of receipts; accordingly the public accountant may confine his verification to a number of exhaustive tests; the sum of cancelled tickets, unused tickets returned for refund, and tickets sold at stations, outstanding at the end of any period, should agree with the station agent's report of tickets sold. Since an audit generally occurs at a time sufficiently subsequent to the close of a period, the uncancelled or

outstanding tickets can as a rule be readily verified; they are generally in before the audit is completed. All tickets of whatever description should be numbered consecutively in series, in order that they may be readily accounted for; in fact, this feature may almost be reduced to a ticket inventory basis, the station agent being charged with all tickets issued to him and held accountable for them in his station reports. The cancelled tickets will form the final check on the amounts collected at the stations.

Interline accounting systems must be carefully investigated by the auditor. A company collects a great many tickets issued by other roads and, of course, issues many tickets collected by other roads. In the one instance it has a claim, in the other it has a liability. The station agent's report should therefore indicate all tickets sold to destinations on other lines and should be accompanied by the duplicates, or other evidences thereof, so that the home office may at once record its liability to the other road. Payments for interline claims should not be made until the cancelled tickets have been returned and checked against the station agent's reports and duplicates. The auditor should verify all outstanding claims against other lines by requesting their certificates; he should verify the amounts due other roads in the same way.

The income from freight traffic is the largest item of revenue. This account is to be constructed, as in the case of passenger income, from the reports of station agents indicating the freight received and the freight forwarded. These reports must be tied up with the cash collections, the way bills, and interline references. The auditor cannot hope to check all these reports in detail, but he must examine the sys-

tem of internal check thoroly so as to make sure that an effective control is maintained by the head office over all the station agents and any others handling the funds of the company. The agents' accounts ought periodically to be audited by traveling auditors or by professional accountants. Uncollected items in the agents' accounts deserve very close scrutiny, and any old or suspicious looking balances carried by the agents must be run down. All accounts with agents per general books must be reconciled with their reports.

In analyzing or vouching the disbursements, the most vital feature to be observed by the auditor is the correctness of the charges with reference to Capital or Operating accounts. Charging construction costs to Maintenance will inflate expenses and consequently profits will appear small and secret reserves will result; at the same time such a condition might lead to agitation for rate increases which, if granted, would fleece the public. The error of charging maintenance expense to Capital would inflate profits and would be damaging to the stockholders. All capital and construction accounts should therefore be carefully analyzed by the auditor; on most roads, there are specific construction departments which are separate from the divisions engaged in maintenance work. This separation of functions has considerably improved the situation from the accountant's view.

Electric Roads

Electric roads are readily classified as follows:

1. Interurban lines.
2. City street railways.

The accounts of the two vary considerably and their sources of revenue are quite different. Street railways come under the supervision of city laws and state commissions. Interurban roads may come under both of these, and if they carry on interstate traffic will be subject to Interstate Commerce Commission regulations. The activities of interurban lines are coming to resemble more and more those of the steam roads; the only marked differences are in the motive power, the rolling stock, and the variety of sources of income. The interurban lines carry freight, they act as agents for the express companies, they carry passengers and maintain regular stations for the sale of tickets and the convenience of the public. Besides, the interurban lines in many localities own and operate amusement parks; they sell electric light and power and obtain revenue from advertising space let in cars. This larger field of operations perhaps makes the audit of interurban electric roads somewhat more complex than the audit of steam road accounts. Moreover, only those roads coming under the supervision of the Interstate Commerce Commission or of state commissions have adopted accounting systems and classifications prescribed by law; the result has been that quite a number of electric railways have not provided themselves with adequate accounting systems, such as are found in the case of steam roads.

In any audit it will therefore be necessary to gain familiarity with the classification of accounts in use and with the accounting system generally. On roads with short runs, where no stations are in use, the income from fares is tabulated from the conductor's traffic sheets. These sheets indicate the cash fares, the tickets, and the passes collected on each run. This

same procedure is followed by city railways. The auditor should make a thoro test of the traffic sheets by comparing them with the daily summaries and the cash book entries. Incidentally, this test will also afford a proof of the conductors' and the motormen's pay roll; no names should appear on the pay roll unless there are traffic sheets bearing the same names. Since every conductor is accompanied by a motorman, the pay roll for motormen can be checked simultaneously. Traffic sheets should be on hand for every day of the year and any omissions must be thoroly investigated. Of course, omissions are possible; the line may have broken down, heavy snowfalls may have made traffic impossible, or strikes may have prevented operations. Receipts from the sale of tickets may be verified more readily than in case of steam roads because there are no interline sales. In many instances, where the tickets are numbered consecutively in series according to destinations, the income can be verified by taking the difference between the first and the last numbers of each series issued and multiplying the result by the rates applicable from point of origin to destination. Such a total check is very effective, and as a rule will be complicated only by tickets in the hands of conductors that are unsold or unaccounted for. However, if daily checks exist on tickets issued to conductors, a reconciliation account can readily be prepared and the income verified.

The income from ticket sales at stations of the larger interurban lines should be verified by the same methods used in the audit of steam road accounts. Income from freight traffic must also be treated in the same way. Miscellaneous income from amusement parks, car advertising, and the sale of scrap

must receive special attention. Much of this income is irregular or seasonal, and it should therefore be thoroly safeguarded. The income from amusement parks consists, as a rule, of leased privileges which are paid in the form of rent; all the rental contracts must be scrutinized and the income compared therewith. Gate fees are rare in connection with these amusement parks, but, where a road charges admission, the turnstile records or ticket numbers should afford an ample check.

Probably the most important feature in the audit of electric railway accounts is the verification of expenditures, especially with reference to their distribution as between capital and income. Frequently purchases for maintenance and construction are identical and therefore it is difficult to distinguish them. Some companies follow the practice of charging all such purchases to a Suspense Account, awaiting an authorized report from the proper department as to the final disposition, that is, as to whether the material was used for repairs and maintenance or for new construction. Some companies maintain fairly well-developed construction cost records, and in such cases the auditor can more readily verify the construction charges. Where detailed cost records are lacking, the absolute verification of these charges is practically impossible. In such cases very thoro inspection must be made of the contract file, the pay rolls, and whatever stores records are available. A fair total check may be obtained by a comparison of operating expenses per car mile with the same expenses of prior periods. If these expenses decrease considerably, there is justification for suspecting that operating or maintenance charges have been capitalized. The comparison can

then be made in more detail so that the differences may be allocated to certain accounts; an analysis of the latter will generally reveal the errors. The auditor should also give the proper advice with reference to the need for adequate cost records and ledgers; these may be operated at very little expense, and can readily be controlled thru the general books.

Proper amounts of depreciation should be provided for all operating property, even tho the company may have fallen into the error of thinking that their franchise values increased sufficiently to offset any depreciation. The charge of depreciation into operations and the consequent recovery thereof thru revenue is the factor which will procure funds for the rehabilitation of the company's property. The increase in franchise values, even if evident, will never secure these funds unless the franchises are actually sold.

Certain portions of reconstruction charges may be capitalized, even tho they might ordinarily be charged against the depreciation reserve. Where the reconstruction actually enhances the revenue producing power, the excess of reconstruction over original cost may rightly be capitalized. It is conservative policy to treat reconstruction of run-down property purchased as a capital investment—especially if the expenditures will produce additional revenue and if proper depreciation is provided and charged against the revenue accruing therefrom.

Quite a number of street railways and interurban lines sell coupon tickets or books; some cities sell six tickets for a quarter or twenty-five for a dollar. Tickets sold in quantities are, as a rule, not redeemable; hence there is little reason for considering the unused tickets as a current liability. Moreover, the out-

standing unused tickets would probably be very nearly the same between periods; consequently a proper check of the tickets sold and of the income derived therefrom should suffice from an accounting standpoint. Where, however, coupon books are redeemable if not used wholly or in part, the company should at least carry a memorandum account covering the contingent liability. If more elaborate control is desired and it has been found that redemptions are considerable, the coupon books sold should be set up as a liability and the latter account translated into income as the cancelled coupons are received.

Income from advertising in street cars and stations is, as a rule, easily susceptible of verification, because the advertising spaces are generally sold or leased to advertising agencies for specific amounts under contract. If the company itself rents out advertising space, the contracts should be carefully inspected and the advertising spaces in the cars and stations should be inventoried. Unused spaces should be properly accounted for. As a rule, the advertisers themselves see to it that the spaces they engage have been fully used; therefore an actual inventory of spaces utilized will reveal any irregularities. The revenue should, of course, be checked against the rates.

Damage suits against street railways and interurban lines are common, and it becomes the auditor's duty to determine the status of these suits. Proper reserves or liabilities must be provided; the entire expenses of litigation must be ascertained; and, if necessary, the company's attorneys should be interviewed or written to in order to determine the extent of unsettled claims and the fees payable. The larger companies maintain their own legal or claim departments and,

in such cases, the departments themselves will yield all necessary information. Threatened suits must be as carefully covered as those actually in litigation. It is advisable, where the practice is not already followed, for the auditor to recommend the establishment of an accident or damage claim reserve account based upon established percentages of these expenses to operations. The reserve must, of course, be ample to meet all ordinary contingencies of this nature.

CHAPTER XXVI

THE AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Telephone Companies

In most of the states, telephone companies have passed under the jurisdiction of public service commissions; these regulate the rates and the nature of service expected, and in many instances have proposed account classifications. These conditions appreciably facilitate the auditor's work.

The income of telephone companies may be divided into the following classes:

1. Local service revenue.
2. Long distance calls.
3. Income from investments.
4. Miscellaneous income from rentals of property, sale of scrap, telephone directory advertising, etc.

A clear distinction should be observed between local exchange income and long distance tolls, and the expenses chargeable should be accurately distributed or proportioned between them.

Income from local service is recorded in the contract ledger, which is ruled so as to provide for monthly charges for an entire year. The original charge to a customer is made in this ledger and is often a carbon of the actual bill mailed out to him. The totals are

transferred each month to the general ledger controlling accounts for customers' ledger and local service revenue. This form of ledger provides a means of carrying balances forward from month to month, so that a trial balance may readily be taken or verified. It will also show at a glance the current accounts as distinguished from the old accounts, thus aiding in the construction of an adequate reserve for doubtful accounts.

The largest expenses by far in telephone companies are salaries and wages. The pay rolls must therefore be thoroly checked. In large cities the number of switchboard operators alone runs into thousands. The pay rolls for these should be compared with the switchboard requirements in each exchange; each operator has charge of certain sections only, and a test check of this kind will very readily disclose any padding. As taxes form a considerable item of expense, the tax bills should be carefully examined. The auditor must also assure himself that the full liability for accrued taxes is included in the books.

Income from the classified advertising section of the telephone directory must be verified. In some of the larger cities, where separate classified directories are issued, the whole advertising section is turned over to some advertising agency, the company receiving the income therefrom under contract stipulations; such contracts must be examined. When the company sells the advertising space itself, the whole revenue may be verified by making an inventory of the advertisements in each issue and multiplying the spaces or insertions by the rates applying to the various kinds of advertising. The revenue from public pay stations may be accounted for either by checking the call rec-

ords (or lists of calls received from these stations at the various exchanges) or, where slot boxes are used, by comparing the record of slot box collections with the call sheets at the receiving exchanges.

The depreciation of telephone property is heavy. For the larger exchanges various state commissions, including the Wisconsin railroad commission, allow an annual depreciation rate of 7 per cent; in the smaller exchanges a larger rate, ranging from 8 to 10 per cent, is permitted. The auditor should see that the rates recommended by the commission are observed. Unusual charges for damages caused by storms may be partly deferred and should be equitably prorated during the period decided upon. The period of deferment should not be too long drawn out, because damages of this nature are of fairly frequent occurrence.

Electric Light and Power Companies

The income of electric power and light companies consists of power, light, and appliance sales. A new feature appears in connection with this type of public service company which has not been discussed before, namely, the manufacturing operations. There is naturally a close relation between current manufactured and current sold, and the two should be reconciled as closely as possible. The enormous quantities of power generated and sold by the electric companies of the large cities make it almost impossible to secure an entire reconciliation between production and consumption. The auditor can, however, make sufficiently exhaustive tests to eliminate to a very large degree the evil of tapping the current. The records of current sold as reported to the general office by the

meter-readers should always be compared in totals with the current production.

The records of meter-readers are the basis for the charges to consumers, as both the bills and the consumers' ledger are constructed from these records. The better form of ledger, now generally in use, provides one account on a page, instead of the horizontally arranged form where dozens of names appear on one page with the monthly charges and balances carried across the sheet. The one name per page ledger eliminates the necessity of writing up each account at the beginning of each year and may be used for a number of years. The balances per consumers' ledger must agree with the controlling account and the entries should be compared in a number of instances with the meter-readers' records.

The sales of appliances should be verified thru the inventories, that is, on a quantity basis as well as by values. A Perpetual Inventory Account should be kept with all the different types of appliances. The auditor should check the purchases of appliances into the inventory account. He should add these to the beginning inventory, and should deduct from the sum of the two the inventory at the end. This will give at once the quantities of each type of appliance sold, and as the prices charged for these are publicly known or are prominently advertised by the company, no difficulty should be experienced in verifying the total income from this class of sales.

The audit of the manufacturing accounts should receive very special attention and particularly with reference to depreciation of equipment. The rates for depreciation should be high, because the element of obsolescence is quite pronounced; it is commonly known

that some of the largest producers of electric power and light have been forced in recent years to throw out an enormous amount of equipment because of its obsolescence. We have been told by a large producer that this was also necessary in order to make a fair profit because of rate regulations which were based upon production costs under the most approved methods.

Gas Companies

The accounts of gas companies are similar to those of an electric company, and the problems confronting the auditor are therefore the same.

There are, however, a number of elements peculiar to gas companies with reference to the manufacturing department. A company manufacturing coal gas sells not only the gas but the by-product—coke. Gas coal of certain grades is supposed to produce fairly even quantities of gas measured in cubic feet and stored in gas tanks. The auditor should test both the quantities of gas produced according to these standards as well as the supply of coke, and by means of such verification of production he should be able (after applying beginning-and-end inventories) to come fairly close to quantities which should be accounted for thru the sales. The gas once accounted for as having been produced and delivered to the gas tanks can from there, after making a percentage allowance for normal leakage, be quite accurately traced to the consumer or the consumption records. Any great variation between production and sales should be carefully investigated; tapping of gas mains is by no means an unusual crime. The offense can generally be traced thru the subsidiary local distribution meters.

WATER COMPANIES

Water rates are usually fixed by the number of rooms of a dwelling or apartment, by meter measurement, or on the basis of facilities used by the consumer (i.e., for hose faucets, kitchen faucets, and bathroom faucets). Privately owned companies generally resort to the meter rates, and municipally owned plants are rapidly adopting the same basis. The charges to consumers on a meter basis are treated in the accounts in the same way as in electric light, power, and gas companies, so that the auditor is confronted with the same records for recording income. Where flat rates are charged, the auditor must see that the company carries a liability on its books for the income not earned, flat rates as a rule being paid in advance during different periods of the year.

Water rates take on the status of tax claims in the case of municipally owned plants, so that the loss from bad debts is very small. In many states a claim of this kind, if unpaid, becomes a lien on the property.

CHAPTER XXVII

THE AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Financial Institutions

The audit of financial institutions, tho in many respects quite simple as compared to other audits, is probably of far greater importance because of the relation of financial institutions to the public. It is, of course, true that all industry must appeal to the public for support. The manufacturer looks to the public to buy his wares, and so does the wholesaler and the retailer; but financial institutions ask for actual cash or the equivalent of cash. They wish either to conserve or to deal with the finances of the nation. Their manipulations and functions are so important that, if improperly conducted, they may plunge a nation into a panic. This condition necessitates close governmental supervision in many cases and requires a high degree of ability and care on the part of a public accountant who may be called in to audit the accounts of such institutions.

It will be quite impossible to cover more than the most important types of financial institutions in this discussion, and even within these limits we must confine ourselves to generalities and essentials. The financial institutions to be discussed have therefore been limited to the following:

1. Banks.
   National and federal reserve.
   State.
   Savings banks.
   Trust companies.
2. Bond and stock brokers.
3. Building and loan associations.
4. Miscellaneous financial institutions.

NATIONAL AND FEDERAL RESERVE BANKS

In making an examination of a national bank an auditor should not, except in the case of a special investigation, regard himself as engaged by the officers or interpret his efforts as being directed by them; he should represent the board of directors, the stockholders, and the depositors. Incidentally, since national banks are under government supervision, he should view his work as supplemental to that of the national bank examiner's and in this way not only serve the government but arouse it to some of the important defects in governmental examinations.

In auditing a bank of any kind the balance sheet accounts must first be considered. These accounts reflect the bank's stock in trade and fluctuate widely from day to day. The audit of the cash and securities comes first, and the following procedure is recommended:

1. Very few of the bank's officers and none of the employees should know of the audit.
2. A sufficient number of assistants should be employed by the auditor so that every clerk in the bank handling cash or securities can be checked up simultaneously, as a safeguard, and in order to dispose rapidly of this portion of the work. (In order that the bank's activi-

ties may not be disturbed, the audit should be started preferably on a Saturday noon at closing, thereby permitting the auditors to work Saturday afternoon and night and all day Sunday, if necessary, to verify the cash and securities before Monday morning.)

3. The first act should be the sealing of all the vaults wherein the securities are kept.
4. The cash and securities in the hands of all the tellers and others must next be counted and in such a way that it is all counted simultaneously. This means a sufficient staff so that all the cages can be handled at once. They must not be taken up in rotation; when handled in rotation it is possible to transfer funds from tellers whose cash has already been counted and verified, to other tellers who may be short. Either the cash count must be begun simultaneously in all cages, or all cash must be brought to one central point and treated as a unit. No access to the vaults should be permitted during the cash count.
5. After all cash has been counted and the tellers' books verified, the cash should be placed in properly labeled receptacles and removed to the vaults. Checks which are to go to the clearing house must be inspected as to their genuineness and a certificate for confirmation inclosed in each clearing house envelope, which the clearing house should be requested to mail directly to the auditor in a stamped envelope addressed to himself. The certificate should confirm the checks sent to the clearing house and give detailed information as to any checks returned unpaid.
6. The securities and other papers in the vaults must next be counted and properly segregated. A distinction should at once be observed between securities held as collateral for loans and the bank's own securities. The latter should agree with the general ledger account unless some of the securities are in the hands of correspondents; in the latter event the correspondents

should be requested to confirm direct to the auditor the amounts held by them. A certificate should also be requested of the United States Treasurer for bonds in his custody to secure circulation or local Federal deposits.

7. In a federal reserve bank all rediscounted paper must be carefully examined and the local reserve members requested to verify the amounts of such rediscounts. In general this whole feature must be carefully examined so that a strict compliance with the Federal Reserve Act may be observed. The collateral securities deposited must be clearly admissible, as provided by the act; and they must be very carefully inspected. The Federal Reserve Act and the rulings in connection therewith should be carefully studied by the auditor before he begins this work.
8. Depositors' accounts form the basis of a bank's existence, and some very thoro tests should be made of the balances in these accounts. Most banks now render monthly statements to customers, the customers being requested to confirm the balances on a confirmation slip enclosed with the statement. The auditor should take this matter into his own hands and should call for all customers' statements. These should first be compared with the ledger balances and then mailed by the auditor himself, who should enclose his own confirmation certificate to be mailed direct to his office. Tampering with customers' accounts has been largely eliminated by the proper distribution of functions among bank employees. One who handles cash or securities is not given access to the customers' ledgers and, moreover, the ledger clerks are switched about frequently, thus preventing at least any extended manipulation of the accounts. The new ledger clerk, as a matter of self-protection, will make a very thoro inspection of the accounts before accepting responsibility for his predecessor's entries. A further internal check may be provided by employing a statement clerk

who compares the balances in the ledgers with the statement balances and who further receives the customers' confirmations.

The deposits and withdrawals for some time prior to the end of the audit period should be compared by checking the customers' confirmed statements with the ledgers. Any entries in a depositor's account other than for deposits and withdrawals should never be passed by the auditor without thoro investigation, and the proper authorizations for such entries must be produced. The entries for deposits and withdrawals must, moreover, be compared with the receiving and paying tellers' records respectively. Such comparisons, altho they must be confined to tests, are very productive in exposing any irregularities. Checking the depositors' accounts in totals against the tellers' total records of deposits and withdrawals and the totals of clearing house, draft, and certified check records often reveals differences which may thereupon be localized.

9. The Capital Stock Account per general ledger should be proved by reference to the stock certificate books and the stock ledger. All capital stock indicated as issued should be accounted for thru values or cash received.

10. Loans to officers should be carefully examined and the collateral therefor subjected to the same scrutiny as other collateral. All overdue paper for loans to officers or others should be listed and its collectibility ascertained. The signatures of all note makers should be carefully examined and compared with any other signatures available. The financial statements of borrowers should also be inspected and a memorandum made of the extent of loans to companies in which bank officers and directors are interested as well as of the discount or interest rates extended to such companies. Collateral notes should indicate specifically the security pledged, and the assignment of these securities must be beyond

question. The makers of unsecured paper or of demand notes should be requested to confirm the amounts of their loans to the auditor direct; any payments on account but not recorded would thereby be discovered. Confirmations as to amounts and as to collateral security should also be requested from all other borrowers.

11. The income from discounts and interest should be tested both as to amounts and as to rates. The income of a bank is not confined to the interest and discount charged its customers, since there is considerable income derived from its own securities. Proper reserves should be constructed by the auditor for unearned discounts, even tho it may not be the custom of the bank to do so; quite a number of banks consider discounts earned as soon as notes for customers are discounted.
12. A bank's expenses do not differ much in nature from the expenses of other business institutions. Salaries form the largest item, and these should be verified in the usual way from the pay rolls. Thoro tests should be made of interest paid on depositors' accounts, and proper receipts should be demanded for postage purchased. The expense accounts of bank officers should be carefully scrutinized and any unusual items reported.

STATE BANKS

Quite a number of states have provided effective control over banks incorporated under state banking laws. Wisconsin is probably the leader in this form of control, and is securing satisfactory results. In that state the control begins with the regulations as to incorporation and continues while the bank remains in business by means of frequent examinations and by control of the bank's investments and loaning privileges.

The audit of state bank accounts does not differ

from the audit of national banks except that the state laws and the state banking regulations must be studied by the auditor before he begins his work. The activities of the management with reference to the connection of their banks with their other interests must be carefully investigated. State banks have in some instances been incorporated as means for financing the incorporators' other business interests. A thoro examination must be made with reference to the adequacy of the bank's reserves.

CHAPTER XXVIII

THE AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Financial Institutions (Cont'd)

SAVINGS BANKS

There are so many inactive depositors' accounts in savings banks that the most important task in an audit is the verification of depositors' balances. Many of these remain unaltered for months or years and the opportunity to conceal defalcations, thru the manipulation of such inactive accounts, is extensive. For the auditor there is here an imperative duty: He must secure confirmations from the depositors and must request that they be mailed to him direct or he must check the pass books as they are presented.

Savings banks are subject to more or less restrictive legislation in the various states. Their investments are limited to certain forms of securities; in many states they do not discount paper or make unsecured loans. They are in this respect quite similar to trust companies; in fact, they are the conservators of the people's savings. Their assets must therefore consist of non-speculative investments, such as bonds and mortgages. The auditor must examine these securities very carefully and verify the income from them. He should, in the case of bonds, determine their market values and their admissibility as investments under the law.

Any mortgages on real estate must be recorded and sufficient insurance carried on the property. The insurance policies must, of course, be assigned to the savings bank.

TRUST COMPANIES

Trust companies act not only in a fiduciary capacity but operate safety deposit vaults, deal in real estate, make real estate loans, and buy and sell bonds. As trustees for bond issues their functions are limited to the collection and disbursement of interest on the bonds and to the enforcement of the stipulations contained in the trust indentures. As trustees for estates, it is their duty to submit to the beneficiaries proper statements of income collected and the expenses of administration, and to pay over to the beneficiaries the net income or to invest it, as the case may be, according to the provisions of the trust agreement. The auditor must satisfy himself that the trust company is fully complying with the terms of all their fiduciary contracts and that accounts to the beneficiaries and principals are regularly and properly rendered. All trust funds must be verified by actual count and inspection of the securities thus held, and from these the income payable to the beneficiaries must be verified. A trust company's income consists of commissions or fees from the trust department, commissions from the real estate department, rents from safe-deposit vaults, and profits from the sale of bonds. The income from all of these sources must be carefully tested. The operations of the bond department should receive rather detailed examination, especially in cases where entire bond issues are purchased to be offered for

sale to the public. Such purchases must be in safe investments and the auditor should examine generally all engineer's surveys, legal opinions, and public accountant's certificates and reports submitted in connection with the bond issue.

It is practically impossible to verify the entire income and expenses of a large trust company in detail. The system of internal check and control over the accounts must, however, be satisfactory before an auditor may conclude that only tests will be necessary; the mere presence of volume is no excuse for making only tests of accounts. Tests are justifiable only where volume is accompanied by unquestionably effective internal audit.

The investments of trust companies must be actually counted and inspected by the auditor and all the income therefrom fully accounted for. It is advisable to count the securities at the very beginning of the audit and at such a time when the client will be least inconvenienced thereby. The importance of proper general ledger controlling accounts for the various departmental activities cannot be overemphasized by the auditor; each department ought to show a profit and should therefore, if conditions permit, keep its accounts on a proper basis.

BOND AND STOCKBROKERS

Bond and stockbrokers, as the name indicates, are primarily middlemen, altho in order to have working capital they themselves are as a rule heavy investors in securities which they buy and sell for use as collateral for bank loans. They buy for customers outright, in which event the securities purchased are

delivered, or they carry securities for customers on margin. The proceeds from sales of customers' securities are either remitted to the customers or retained by the broker as deposit accounts if the customers so desire; interest is allowed the customers on these deposit accounts and they are carried in practically the same way as regular bank deposits.

Securities carried for customers on margin are not delivered, but are retained until the customer orders a partial or total sale thereof. The profit on the sale is then credited to the customer's account and the commission earned by the broker is charged. Whenever the customer's marginal security falls below the number of points required, the broker requests additional margin; if the latter is not forthcoming, the customer will be "sold out" and the margin or a part thereof will be forfeited. The securities carried for customers on margin are used by the broker as collateral for loans or are carried "in the box" until they are sold. As a result, the collateral on loans is constantly changing; therefore it is very important that a statement from the banks be secured immediately when an audit is started. All loans (which are generally demand loans) are recorded separately in a loan register and the list of bonds and stocks used as collateral for each loan is clearly indicated. This list should be copied at once by the auditor and mailed to the bank for confirmation. The confirmation request should cover both the loan and the collateral.

Statements of customers' accounts (generally press copies) are mailed at the end of each month. They show the transactions for the month, the balances and securities long and short at the beginning and the end of the month, and the securities received and delivered.

An audit of stockbroker's accounts should always start at the close of a month's business so that the auditor may himself mail to the customers the press copies of their ledger accounts and enclose his requests for confirmation. Before these are mailed an assistant must record from each customer's account the securities long and short under the captions of the various securities as follows:

CUSTOMERS' BALANCES

MISSOURI PACIFIC 5'S

Long		Short	
John Smith	20 M	Tom Brown	15 M
Fred Jones	40 M		

etc., etc.

U. S. STEEL, COMMON

Long		Short	
John Smith	10 shares	Tom Brown . . .	60 shares
Fred Jones	100 shares		

etc., etc.

Simultaneously with the preparation of the long and short schedule from the customers' statements and the preparation of confirmation requests for bank loans and their collateral, the auditor and his staff must at once count all the cash and revenue stamps and check these against the general ledger accounts. He must also, before the next day's transactions occur, examine and list all the securities on hand or borrowed and compare his lists with the general ledger controlling accounts.

The lists of securities on hand (of stocks loaned and borrowed and in transit and of stocks long and short in customers' accounts) should be compared with the stock ledger, and the broker's own long and short

securities with the general ledger. All of these comparisons must be made, lists prepared, and confirmation requests mailed before the next day's transactions begin, because the many changes occurring daily make it extremely difficult to iron out any differences occasioned by subsequent transactions. Securities in transit may be readily verified by requesting confirmations from branches at the close of the same day on which the audit of the main office accounts are begun, and by having the audit of the branch accounts started at exactly the same time.

Confirmation requests should be mailed to all customers and to other brokers. Customers' accounts for which no statements are mailed, must be carefully investigated and brought to the attention of the management. The omission of such statements may be perfectly regular, as in case customers have requested the broker not to send statements because of personal reasons, or it may indicate the use of such accounts for illegitimate objects. Unless letters are on file from customers specially requesting that no statements be sent them, it is the auditor's duty either to mail out all statements, irrespective of any excuses on the part of the broker's office force, or to send an assistant to the customer with a copy of the statement and a personal request for the verification thereof.

The Margin Accounts must be very carefully investigated; if the margins are insufficient, the matter should be brought to the client's attention. The same care must be exercised in verifying interest and commission charges and the interest paid to banks and other brokers. The income from the client's own securities must be fully accounted for, the bank accounts reconciled, the trial balances of all subsidiary ledgers veri-

fied, and all accounts in the general ledger thoroly inspected.

The books of bond and stockbrokers are very different from the books of other business concerns; therefore an auditor should be cautioned to put some study on the subject before beginning an audit of this kind. Often cash journals are used to record cash receipts and disbursements, and securities delivered and received. The cash receipts and securities delivered are on one side (generally the left) and the cash disbursements and securities received on the other. In most other respects the accounts are similar to those of other businesses. The most important thing to do in an audit of stockbrokers' accounts is to secure at the earliest possible moment a balance between the lists of stocks and bonds short or long, as per customers' ledgers, and the lists of stocks and bonds deposited with bank, on hand "in the box," and securities in transit. If the auditor has made no error in preparing his schedules and if the accounts are in order, the lists will balance exactly. In order to make an audit of stockbrokers' accounts of any value, it must not only be thoro but detailed to a fine degree. The dangers from fraud and error are so great that anything short of a detailed audit is practically worthless.

CHAPTER XXIX

THE AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Financial Institutions (Cont'd)

BUILDING AND LOAN ASSOCIATIONS

There have probably been more defalcations in connection with building and loan associations than in any other form of business activity. This condition has been due to "one-man" control over the funds and accounts of these associations. The auditing committees elected by the association members or appointed by the board of directors are, as a rule, amateurs in accounting, and their inspection of the records is therefore quite valueless. The accounts should be periodically audited by reputable public accountants. The audits should be made in detail and at very frequent intervals.

The income of building and loan associations is derived from the following sources:

1. Interest on loans.
2. Premiums on loans.
3. Income from investments.
4. Fines for delinquency in payment of dues and interest.
5. Initiation fees (sometimes credited to a reserve account and returned to the shareholders when their contributions have been all paid in).

Interest on loans must be verified from the Cash Account, the notes themselves, and the loan registers. In the larger associations, where the notes are all numbered, each number must be accounted for. The balances due on notes should be verified by correspondence with the borrowers. As the rate of interest on all loans is the same, the verification of this income is quite simple.

Premiums on loans are obtained by a process of bidding by the stockholders, or a premium is charged outright. The minute book of the association should be inspected in this connection, since the making of all loans should be recorded therein. If the auditor has any suspicions with reference to premiums paid for loans, he should not hesitate to take the matter up directly with the borrower.

In scheduling and examining the investments, which consist chiefly of real estate mortgages, the auditor should at the same time prepare a statement of the income therefrom. The mortgages should be supplemented by the insurance policies assigned to the association and by such documents as are necessary to establish the mortgagor's title. The auditor must also make sure that all mortgages have been properly recorded. All collateral on loans made to stockholders or others must be on hand and should be carefully inspected by the auditor.

The income from fines must be verified in its relation to the dues and the interest payments. Each member's record of payments must be investigated and each delinquency recorded. To do this effectively the auditor should call in all members' pass books or should inspect these as they are presented at a regular meeting of the association. This method will also

afford the best proof of the outstanding capital stock. All the pass books for each series of capital contributions should be consecutively numbered, so as to make it possible to account for all books issued. Whenever delinquencies have been passed without the imposition of a fine, one of two things has occurred: Either the secretary has neglected to impose a fine, which is contrary to the by-laws, or else he has pocketed the amount. It may, of course, be possible that fines have been remitted in special cases, but the board of directors would have to approve such action and the matter would in that event be covered in the minutes.

Initiation or admission fees in the case of building and loan associations are rather uncommon. Where such fees are charged, they are generally credited to a reserve account which becomes available when final distributions are made, or they are used for various specific purposes. In some few instances it may be found that they are distributed with the profits on some pro rata basis.

The profits of building and loan associations should be segregated according to the different series of capital contributions. It is not correct procedure to calculate the profits on a basis of the dues paid in during the year under audit. The accrued profits at the beginning of the year for each series must be taken into consideration as well as the accrued profits from the prior year withdrawn during the year. To put the matter on a formula basis, we would have:

Accumulated dues + accrued profits at the beginning of the year + an equivalent annual amount of dues paid in during the year — entire dues paid in during the year and accrued profits (of the beginning of the year) withdrawn during the year = average working capital.

(To be worked out for each series on which the profits are to be apportioned.)

A very convenient and serviceable form of cash accounting is coming into common use. The form is arranged as follows:

SERIES I

Number of Books	Week ending			Week ending			Week ending		
	Dues	Fines	Interest	Dues	Fines	Interest	Dues	Fines	Interest
1									
2									
3									
etc.									

The numbers of the pass books are arranged consecutively in a vertical column. The columns spread across the page provide for the entry of dues, fines, or interest paid at each regular meeting. The totals of these columns will be posted once each week in the general cash book. All other cash received at irregular intervals will be entered in the general cash book direct. The auditor should, of course, recommend that all cash received be deposited intact in the bank and that all expenses be paid by check. The total of dues received will be posted once monthly from the general cash book to the Capital Account; fines and interest will be posted to the proper controlling

accounts for income. In the entire accounting scheme, the various series and the income and expenses in connection therewith should be kept entirely distinct from one another.

MISCELLANEOUS FINANCIAL INSTITUTIONS

There are in the United States a host of miscellaneous institutions, corporations, and individuals dealing in securities, that finance enterprises and deal in so-called "business chances." Some of these firms do a legitimate business and others are primarily swindlers; the latter class, naturally, rarely call in public accountants and whenever they do the accountant's report is not for the public eye. It is unfortunate that state and national legislation has not removed these leeches from our financial circles. None of them should be permitted to ply his trade without government license, regulation, and examination. The most flagrant offenders of this class of so-called "financiers" use as their prey companies that are practically insolvent; the latter are induced to issue bonds, which from the nature of things can never be sold (unless by misrepresentation) and the "financier" collects a handsome fee for preparing a prospectus, for traveling expenses, and for having the bonds lithographed; moreover, he charges a fat commission for the few bonds sold or handed over to creditors in liquidation of their claims.

No respectable public accountant can sanction such practices. Should he, by chance, be asked to audit the accounts of such swindling institutions, he should either refuse to take the engagement offhand or inform the prospective client that he will not

treat as confidential any practices clearly fraudulent or dishonest. Let him assert that he will report any such practices to the proper public authorities for investigation. No auditor of character can afford to prostitute his calling on the theory that his relations to a client are purely confidential when the client is a rank offender against law, and, in essence and fact, a swindler and reprobate.

It is wrong, however, to conclude that all small investment brokers and other institutions not heretofore discussed fall into the class whose practices we have just condemned. In fact, we have found as much and in some cases more real sterling honesty in small financial institutions than in some of the very large ones. In dealing with these miscellaneous types of financial institutions we must confine ourselves to two, namely, investment companies and business brokers.

Investment Companies

Investment companies do not deal in securities as agents for others; they represent combinations of capital for investment purposes, the theory being that where many individuals can merge their capital and have it distributed over a large variety of investments, the chances for loss are much diminished and the opportunities for gain considerably increased. Companies of this kind therefore buy securities for the income they yield and not as objects of sale. In auditing the accounts of such companies, the most important tasks are the verification of income and the counting and inspection of the securities.

The income from securities on hand should be verified and tabulated from the securities themselves,

and thereupon related to the cash book entry for dates of purchase. The income from investments sold during the year must be very carefully investigated, and should represent the accrued income from last interest or dividend date (or from the close of prior period) to date of sale. The cash book should show clearly the amount received in full, the profit over cost (if any), and the accrued interest. In the case of purchases, the cost of the investments and the accrued interest should be shown.

Very often investment companies buy up an entire bond issue at a discount. In that event the investment should be carried at cost and the profit shown when the bonds are retired or sold. If the bonds are retired serially, the difference between cost and retirement price should be shown as a profit as the bonds are retired. The following illustration will indicate the procedure necessary:

The bonds of the A Company, amounting to $100,000.00, are purchased at 96, and are to be retired by the A Company at the rate of $10,000.00 each year. The entries would be:

Company A Bonds	$96,000.00	
Cash		$96,000.00
To record the purchase.		
Cash	$10,000.00	
Company A Bonds		$9,600.00
Profit and Loss		400.00
To record retirement of $10,000.00 bonds of Company A and profit thereon due to discount at date of purchase.		

In cases like the above the auditor must make sure that the credit to the investment account for bonds retired is at cost; otherwise the balance in the account would indicate that the remaining bonds were purchased

at even less than the original price, and the profit on the bonds retired would not be evident.

Profits on the sale of investments are sometimes, and very wisely, put into a reserve account to provide against possible losses from other sales. However, it would probably be quite proper to transfer the balance in the Reserve Account at the end of each year to Profit and Loss, thus making each year stand on its own base. The income from the securities themselves, as adjusted by the Reserve Account, would without question be available for dividends; the income would reflect truly the net results from the year's activities.

For published balance sheet purposes the investments should be shown at cost or market, whichever is the lower, but it is not necessary to make any adjustments for differences on the books of the investment company. An investment company is not a dealer in securities, and market fluctuations do not regulate the sale of its securities. An investment company should, and as a rule does, sell only when the market is favorable (that is, above cost), or it may sell below cost if it is thereby offered an opportunity to buy at a discount other securities which will result in an appreciable eventual gain. In an audit of such accounts it will therefore suffice if the auditor in his own balance sheet states the securities at cost or market, whichever is lower, or if he comments on these values in his report; the company's books need not be altered.

Business Brokers

Business brokers' activities are many and varied. They buy and sell stores for others, they secure

loans, sell bonds and stocks, arrange leases, promote industries, locate factories, and do almost any number of other things by which sellers and buyers are brought together. Their income is therefore as varied as their activities, and yet it is quite necessary that the income be accounted for in its various forms and that the expenses be distributed accordingly, as far as that may be possible, practicable, and feasible. The auditor may make his worth strongly felt by offering constructive criticisms with reference to the proper systems of accounting whereby the income and expenses may be properly segregated and the profits from each activity clearly demonstrated.

It is advisable for the auditor to propose that the accounts be kept on an accrual basis. There is here no regularity in the cash income; consequently accounts prepared on a cash basis offer no basis of comparison between periods. Moreover, unless accounts are kept with all customers, there is great danger of overlooking some of them. The auditor should inspect all accounts receivable very carefully, as many of them may be uncollectible. The real danger in a business of this kind is that of omission. Many arrangements are verbally made; the customers as a rule are bargain hunters and speculators moving from place to place, frequently without leaving an address, and the transactions are therefore more or less unsatisfactory and intangible. There are real difficulties before the auditor, with reference to both the verification of income and the valuation of assets. If, therefore, he will confine himself to constructive advice, after satisfying himself as far as possible with regard to the items of income and expense and the balance sheet, his work will be well performed. Business brokers need account-

ing systems before they need audits, and if they will live up to the few following rules their profits will be more certain and determinable:

1. All cash received should be deposited intact in bank.
2. All bills and expenses should be paid by check or from a petty cash fund operated on the imprest system.
3. All agreements should be reduced to written contract form, specifically setting forth the work to be performed, the remuneration therefor, and the mode of payment.
4. All accounts should be kept on an accrual basis and so segregated that the profits on each kind of activity may be readily determined.
5. Statements should be mailed to customers the first of each month and the accounts promptly collected when due.

CHAPTER XXX

THE AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Insurance Companies

Insurance companies are under strict surveillance in practically all states of the Union. Moreover, the different states are quite severe on foreign companies who wish to do business within their bounds, and they tax such companies to the limit. The insurance commissioners have much power and have not hesitated to use it; consequently before auditing any insurance company, the auditor should become familiar with the state laws. These are much the same thruout the country with reference to general principles, but vary greatly in the details affecting operations. In most of the states the capital stock must be fully paid in before a company may start business, and its assets must have been inspected by the insurance commissioner; in other states, a minimum capital stock is required. After a company has once been organized, the states regulate the investment of the capital stock by limiting it to bonds and first mortgages on property (otherwise unencumbered), ground rents, United States bonds, bonds of other states or political subdivisions of a state, and approved railroad bonds. The investment of surplus funds is also under state regulation; altho the provisions are more liberal, no loans may be made on personal security, the amount of

single loans is limited to certain percentages of the capital stock, and there are other provisions regarding the total amount which may be invested in real estate mortgages. The companies are usually prohibited from holding real estate except as it is necessary for the transaction of their business, or in case the property was obtained in satisfaction of debts and is to be sold at the first opportunity. The laws regulate the payment of dividends; dividends may not be paid except out of net profits actually earned and not in excess of certain rates.

Life Insurance Companies

It is very evident that an auditor must acquaint himself with the state laws regarding life insurance companies before beginning such an audit. The company must comply fully with these laws or its charter may be summarily revoked; the auditor must therefore know the laws fully in order that he may advise his client of any accounting procedure or acts contrary thereto.

The books of a life insurance company are ordinarily kept on a cash basis. No entries are made to show unpaid past due premiums; the policyholders' ledger merely indicates no payment, since there is no credit to such accounts. Death claims are settled in cash and no entry of the claim appears on the books until settlement is made. The principal books of an insurance company consist, therefore, of a number of cash books and the necessary ledgers. There is a general cash journal for recording the totals of receipts, the details of which are found in subsidiary records wherein the sources of income are designated and

properly classified. These subsidiary records tabulate the receipts from agents, from the home office, and from foreign agencies. The general cash journal contains the necessary columns for the general ledger controlling accounts; on the receipt side provision is made for premiums, interest, loans, mortgages, and real estate; and on the disbursement side, for agents' commissions and salaries, notes receivable, general expenses, traveling expenses, death claims, surrender values, mortgages, postage and exchange, medical examination, and dividends to policyholders. An extra debit and credit column is provided for miscellaneous entries to be posted direct to the general ledger.

Premiums on policies form the bulk of income. One of the first duties of the auditor is to verify this income. Under ideal conditions the total premiums credited in the general ledger should equal exactly the credits to the individual accounts in the policyholders' ledgers, but because of the almost limitless number of policyholders it is practically impossible to verify the income thru the credits in these ledgers unless the company wishes to expend a great deal of money. Verification of income for a given period can, however, be accurately approximated by total comparisons between years. To the premiums of the prior year should be added all premiums on new business written during the year under review, and from this there should be deducted the effects on premiums from cancellation of policies, from paid-up policies, from death claims, from abatements, and from lapses. The premiums received on new business may be verified thru the examination of the policies issued, by making sure that all the numbers for the different classes of policies have been fully accounted for in the various

subsidiary cash books. A very thoro test of premiums for the current year can be made in this manner, and since those companies employing public accountants generally have their books audited at least once each year, a very satisfactory check on premium income may be obtained.

Since duplicate copies of policyholders' accounts are kept in the actuarial department, where they are arranged according to classes or types of policies, a test comparison between the actuarial and the accounting department file should be made. The past due accounts should be tested in this way.

The actuarial policyholders' files are segregated according to types of policies, and thereunder according to ages of policyholders at the time the policies were issued. This arrangement is necessary so that the proper reserves may be created for each type of policy. The calculation of these reserves requires a high degree of mathematical knowledge and training, and the average auditor is scarcely competent to verify the mathematical calculations forming the basis of the reserve construction; to make sure that these calculations are correct, he should call upon an actuary to assist him.

In order to ascertain whether all past due accounts in the policyholders' ledgers are genuine, it may in some instances be advisable for the auditor to circularize these accounts in part or in whole, requesting that the policyholders mail their replies direct to his office.

All the disbursements for death claims should be carefully inspected, and properly approved vouchers must accompany the charges. Dividends to policyholders must be thoroly tested, cash surrender pay-

ments vouched, and the disbursements for all expenses, salaries, and commissions carefully investigated. In the larger companies, where the internal check is extensive and efficient, fairly exhaustive tests of these various items will suffice. The reports to the insurance commissioner should be compared with the company's own books; the two should agree. The legal reserve must be properly constructed and must meet the legal requirements fully.

Probably the biggest task and an immensely important one confronting the auditor, is the verification of the insurance company's investments. These consist generally of the following groups:

1. State, municipal, railroad, and other bonds.
2. Bank and other stocks.
3. Mortgages and ground rents (first liens).
4. Premium notes secured by policies.
5. Policy loans.
6. Loans secured by bonds, stocks, etc.

These securities are listed in registers wherein the various classes are segregated. The totals in these registers must agree with the general ledger accounts, and the income from these securities may be computed from the registers; the registers show the name of the security, the date of purchase, the par value, the purchase price, the rate of interest (in the case of bonds, mortgages, and loans), and the due dates. These registers should be used in determining the income which is accounted for in the general ledger, thus providing an independent check against the cash records.

The securities themselves must be counted and carefully inspected by the auditor and his staff, or if

deposited with the state insurance commissioner that fact must be verified by correspondence. The counting of the securities on hand is a time-consuming task; anywhere from 75 to 95 per cent of life insurance company assets are in the form of securities. However, just because of this fact and the strict requirements of the law regarding investments, the auditor must inspect and count the securities in full, and, at the same time, assure himself that they are proper and according to legal requirements.

Among the liabilities the auditor should verify the following accounts by means either of exhaustive tests or of complete examinations wherever conditions permit or where the internal checks are weak:

1. Reserve as required by law (by far the largest item).
2. Additional policy reserve in excess of legal requirements (basis of construction).
3. Premiums paid in advance.
4. Policy claims awaiting proof.
5. Accumulations upon deferred distribution policies.
6. Miscellaneous current liabilities.

A very detailed analysis should be made of the Surplus Account and the payment of dividends. The states regard the Surplus Account of an insurance company as a provision for all contingencies not specifically provided for, rather than as available for dividends, and they have therefore placed a limit on the rate that may be paid.

Fire Insurance Companies

The audit of fire insurance company accounts presents no problems very different from those encountered in a life insurance company. The income,

however, is treated somewhat differently, because of long time premiums and because every premium received may become, at least in part, a liability. Premiums are therefore credited to income as earned and not when received. The agents' reports contain the original entries of premiums, and a thoro test of these should be made by tracing these reports into the general books. Balances due from agents must be carefully examined, and accounts that are past due should be taken up with the proper official of the company.

All payments for losses must be *bona fide,* that is, must be properly authorized and paid to policyholders as evidenced by the premium or policyholders' ledger. All other vouchers for expenses, refunds, and abatements must be properly authorized. As in the case of life insurance companies, all investments in securities must be verified by actual count and inspection and the income therefrom proved.

The liabilities of fire insurance companies are very similar to those of life insurance companies. The largest is the reinsurance reserve, and the basis of its construction is ordinarily fixed by state law; this account must be verified by the auditor and he must satisfy himself that the law has been fully complied with. The auditor should insist that ample reserves or liabilities be included in the accounts for accrued taxes and expenses, for losses in dispute, and for losses adjusted but unpaid.

CHAPTER XXXI

THE AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

PUBLISHERS

Publishers may be roughly classified according to the nature of their product as follows:

1. Publishers of books.
2. Publishers of periodicals.
3. Publishers of newspapers.

Publishers of books may do their own printing, binding, and selling, in which event the publisher is a manufacturer and the accounts will resemble those of an ordinary manufacturing business. The plant will be divided into departments and costs will be indicated on a departmental basis. The cost of sales will include the materials used, the labor employed, and the various departmental overhead expenses. All of these costs will finally be expressed in the finished inventory of books, the object of sale. The auditor in this case must verify the inventories of materials, goods in process, and finished stock. He must assure himself as to the pay rolls and their distribution to the manufacturing departments, and he must make sure that all overhead expenses have been properly apportioned and included.

In verifying the income based entirely on the sale

of books, the proper procedure consists of reconciling the sales with production, that is, the Finished Inventory Account. The sales records should clearly indicate the titles sold, in quantities and values, and so afford the basis for monthly credits to Finished Inventory Account and for royalties or commissions payable to authors or agents respectively. Royalties to authors are based either on quantities sold or are figured on a percentage to sales values. If the sales records clearly indicate the quantities sold, it will be an easy matter to verify the credits to the authors' accounts. The multiplication of the quantities by the rate per volume will at once furnish the amount to which an author is entitled during any given period. When royalties are based on values, it will be necessary for the auditor to inspect very carefully the costs of production in order to make sure that they have all been included. In any event the royalty accounts must be tied up with the royalty contracts, which the auditor should carefully inspect.

As every author knows only too well, books do not always sell. The publisher can generally protect himself partly on a first edition by securing a proper guarantee from the author; subsequent editions, however, are generally published at the risk of the publisher. Copyrights are often purchased outright. At any rate, in many cases the publisher has found that some publications do not sell and that the books on hand are worthless; such books are not worth their cost and should be written off, or at least reduced to scrap value. To guard against conditions of this kind the publisher should carry a stock of titles based upon past sales as related to quantities on hand.

Consignments of books to agents should be valued

at cost and considered as part of the Finished Inventory Account. The reports of agents must be carefully scrutinized, however, and the publisher should insist on prompt remittances for books sold. Certificates verifying the inventories in their hands at the end of the period under review should also be requested from the agents.

The verification of finished inventory and of book plates ought to be a very simple task. The amounts on hand, having been determined thru the production and the sales records, may be verified in many instances by actual count; since editions are limited to certain numbers of volumes, such tests are easy. There may be some overrun or slight shortages, but even these can be readily proved by reference to the quantities of stock used in production. The values placed on book plates are somewhat more difficult to verify. The values should be based entirely upon the demand for the publication and the probabilities of subsequent editions. Plates for novels written by authors of limited reputation should be written off as a cost of getting out the first edition. The plates used in connection with standard publications for which the demand has proved fairly constant, may properly be carried in the inventories for a considerable period or until they have deteriorated beyond effective use. Copyrights should be valued not on the basis of their unexpired life but on the basis of the demand for the books. An inventory of plates and copyrights can never give a publisher working capital, and the sooner he can recover these investments thru sales (that is, by charging them off into costs), the more sound will his business be. For purposes of balance sheet construction, all inventories should, of course,

be carried at cost and reduced to market if the latter is lower.

Publishers of magazines and periodicals do not carry a finished inventory stock which possesses any value (except as waste paper) after the dates of issue. As a result production must be based closely on circulation. The only plates having any value are those held for long time advertisers. It is very important that the auditor permit no valuation on old issues of magazines. He may make his work effective by preparing proper reports on the relation of production to circulation and the quantities of "left-overs." There must be some left-overs but only in sufficient quantities to meet a normal demand for old numbers, which may be established by an investigation of the publisher's experience.

The largest revenue of magazine as well as of newspaper publishers comes from advertising. Advertising is directly related to circulation. As the circulation grows, the advertising revenue should grow. A sort of proportion should exist between the two, so that comparison of advertising revenue with circulation affords an excellent test of this relation as well as of the efficiency of the advertising department. The income from advertisements should be verified by multiplying the advertising spaces by the rates for each space; a test covering a number of issues should suffice. Newspaper advertising revenue must be tested, as it would be quite impossible for an auditor to verify the income fully. In both magazine and newspaper advertising, the contracts with the advertisers should be carefully examined and the rates charged on the books verified therefrom.

Circulation revenue should be tied up with quanti-

ties printed after making the proper adjustments for copies returned, unsold, or spoiled. In fact, there is no other check; enormous detail makes any other test impossible. However, all circulation accounts must be thoroly tested as to their accuracy as well as to the mode of their construction. Circulation revenue from mail subscribers to magazines can be quite accurately checked by means of the total weight indicated on the mailing records or post-office receipts; the latter, when divided by the weight of each copy, should give accurately the number of copies mailed.

The collection of subscription accounts or the handling of cash should be absolutely divorced from the circulation departments. If this rule is religiously observed, the circulation records themselves, if properly kept, should afford an excellent index to the circulation revenue. Subscriptions paid for in advance should be kept entirely separate from cash circulation and should afford the basis for monthly entries against the prepaid subscription liability. Outstanding subscription or advertising accounts must be carefully examined and proper reserves constructed for any that appear doubtful. Journal credits to such accounts must bear the proper approval.

It is important in any publishing business that all costs of production and operation be fully included. An examination of the cost records is very essential. Many publishers and newspapers conduct regular job printing departments. The auditor must be careful to assure himself that the various departments are charged with their proper share of overhead expense and that all idle time of equipment be taken into consideration. The pay rolls and the inventory accounts deserve very special attention, and the stocks used

should be reconciled as closely as possible with production and sales.

Timber Companies

The most important feature in the audit of timber cutting companies is the so-called "Stumpage Account." This represents the capital of the organization. It is the purchase price of the standing timber, and since the income is derived from the sale of cut timber, the Stumpage Account is a deferred cost of sales. For purposes of properly costing the sales the Stumpage Account must indicate the number of feet of standing timber acquired and the unit price of each kind of timber (the unit is one thousand feet). The quantity of timber included is an estimate based upon the cruise of the company's timber expert. As a rule the estimate is conservative; consequently the timber company generally finds considerable uncut timber left after the Stumpage Account has been entirely written off into cost of sales.

As the depletion of the timber represents the use of capital invested, the sales price of timber or logs represents in part the capital which must be returned to the stockholders. It is therefore advisable to split the sales into the following elements:

1. Capital returnable to investors.
2. Operating expenses.
3. Interest on borrowed money.
4. Net profit.

When dividends are declared, the portion of capital returned thereby should be clearly indicated; in fact, each stockholder should be advised that his dividend

consists of two parts, namely, a certain amount of capital and a certain amount of profit. The accounting procedure necessary to accomplish this is fairly simple. Let us assume that timber licenses have been purchased which are valued at $700,000.00 and that $700,000.00 of capital stock has been issued. The original entries would be:

Cash		$700,000.00	
Capital Stock			$700,000.00
To record investment by shareholders.			
Stumpage Account		$700,000.00	
Cash			$700,000.00
To record purchase of timber licenses for 148,000,000 feet of timber at the following prices:			
128,000,000 ft. Pine	@ $5.00 per 1,000 ft., or		$640,000.00
20,000,000 ft. Hemlock	@ $3.00 per 1,000 ft., or		60,000.00
			$700,000.00

During the first year 16,000,000 feet of pine timber and 2,000,000 feet of hemlock were cut and sold. The entries would be:

Cost of Sales		$86,000.00	
To Stumpage Account			$86,000.00
To record cost of timber cut and sold during the year as follows:			
16,000,000 ft. Pine	@ $5.00 per M		$80,000.00
2,000,000 ft. Hemlock	@ $3.00 per M		6,000.00
			$86,000.00

The expenses of operation amounted to $150,000.00, interest on borrowed money to $3,000.00, and the timber was sold for $350,000.00. A condensed profit and loss statement would show the following:

Sales		$350,000.00
Deduct:		
Cost of Sales	$86,000.00	
Operating Costs	150,000.00	236,000.00
Operating Profit		$114,000.00
Deduct—Interest on Loans		3,000.00
Surplus Net Profit		$111,000.00

It is clearly evident that sales have returned not only the capital depleted ($86,000.00) but all expenses and interest, and have yielded a net profit of $111,000.00. The sales, therefore, represent the following increments expressed in percentages:

Capital Depletion	25.57%
Operating Costs	42.86%
Interest on Loans	.86%
Net Profit	31.71%
Total	100.00%

The balance sheet at the end of the year, assuming that all expenses had been paid in cash and that the sales were on a cash basis, would be as follows:

Assets	
Cash on Hand	$197,000.00
Stumpage Account	614,000.00
	$811,000.00

Liabilities	
Capital Stock	$700,000.00
Surplus (Net Profit for year)	111,000.00
	$811,000.00

From this balance sheet, we can readily see that the Stumpage Account (the basis of investment) has been reduced by $86,000.00; that it has been converted into cash; and further, that the net profits are also represented by cash. The company may legitimately declare a dividend of $197,000.00, representing $86,000.00 capital returned and $111,000.00 net profits from operations. The entries would be:

Capital Investment Retired	$86,000.00	
Surplus	111,000.00	
Cash		$197,000.00

More conservative methods, of course, would be to return the capital depleted, charging the entire amount to surplus and retaining the remainder of the cash for working capital, or to declare a dividend out of the net profits only.

By analyzing the sales into the various increments of costs, profit, and depletion of capital, the company will constantly have before it the elements to be considered in price making and the ever present element of actual capital exhaustion. The auditor must see that this depletion is fully covered in the cost of sales.

An excellent auxiliary proof of quantities of timber cut and sold is afforded by the official scaling of government officials in Canada. No timber lands are sold in Canada; all cutting privileges are in the form of licenses, and the government collects dues from a timber company on the basis of units of thousand feet cut. The reports of the government scalers should agree with the company's own records.

The largest expenses of timber cutting are for actual cutting and driving. Large camps are provided

for the loggers, where they are housed and fed, so that the commissariat is an important factor. Proper inventories should be maintained for all food and camp supplies, and no stores should be issued except against properly signed requisitions. The food costs should be very carefully investigated by the auditor and, if possible, reduced to a unit basis for each camp; a comparison between unit food costs at the different camps will readily reveal extravagance, mismanagement, or pilfering.

Timber companies make heavy investments in road improvement, bunk houses, dams and river improvements, drives, and transportation equipment. The larger part of these will be worthless after all the timber has been cut. It is therefore necessary for a company to estimate in advance the number of years required to cut the timber and to depreciate its properties annually in the proper proportion. Or, better still, the depreciation may be figured on unit production, which will extinguish the property accounts as soon as the total original estimate of standing timber has been written off.

As the loggers are all paid in cash, it is important that the pay rolls be inspected carefully. An independent check on pay rolls is afforded by the camp steward's records of meals served. No audit of camp pay rolls is complete or adequate without comparing these records with the pay rolls. Since a great deal of cash is handled by the logging superintendent and his assistants, the auditor should investigate whether these employees are sufficiently bonded. He must also insist on proper safeguards in the cash accounting, and should demand proper vouchers or receipts for all cash disbursements. As the purchasing of supplies

must, from the nature of things, be allocated to one individual or to a very few, the auditor must look carefully into the purchases and inventories. Any inventory shortages must be satisfactorily explained before being accepted as normal; they may represent the effect of short deliveries.

CHAPTER XXXII

THE AUDIT OF SPECIAL BUSINESS TYPES (Cont'd,

Breweries

Brewery accounts are unique because of the peculiar relations existing between the brewers and their customers, for brewing companies in many instances virtually finance their customers. Cash advances are made to saloonkeepers for license taxes, bar room fixtures, and even working capital. As a result a large portion of a brewery company's assets consists of notes secured by chattel mortgages or otherwise. These assets must be carefully scrutinized, as many of them may be uncollectible. The notes are generally installment notes. The auditor should secure full data with reference to past due installments and should examine the collateral with care. Adequate reserves should be set up for doubtful notes and accounts.

The sales of a brewery may be proved quite easily. The production records indicate very accurately the quantities of liquor brewed, because they must be kept on a daily basis in conformity with internal revenue laws and regulations. The production or shipping department must also record the daily sales, and the purchasing department is required to record the kinds and quantities of materials purchased and received. From these various records monthly reports are prepared in duplicate; these are collected by the revenue

collector each month after he signs the brewery record books. Tho not a part of the general accounting scheme, these record books must agree with the general books and, in fact, afford an excellent checking medium. The quantities sold can readily be reconciled with the production records.

Brewers take an actual inventory of brewed beer on hand at the end of each month. The auditor should compare a number of these monthly inventories with the stock records, which contain the following very valuable information:

1. Materials purchased (based on invoices and receiving clerks' records).
2. Materials used (based on brewmaster's report).
3. Beer on hand at the beginning of the month.
4. Beer brewed (related to materials used).
5. Beer sold (based on sales book summaries).

The inventory of beer on hand at the end of each month must agree with the following formula:

Beer on hand at beginning of month + beer brewed during month — sales and beer consumed by employees (based on bartender's record) = beer on hand at end of the month.

There are few other industries where the control over raw material, and by-product, and finished stock inventories is as thoro as in breweries; much of the profit accruing to these institutions is due to this effective inventory control.

All beer is sold in containers. The effective control over production and sales has made it possible to account quite accurately for the containers, even tho many are lost. The barrels, half-barrels, and kegs

are carefully traced so as to reduce losses, and bottles should be charged to the customer so as to reduce the loss from these to a minimum. Customers will, of course, receive credit for bottles returned. Another excellent check on the sales is thru the stamp record and inventory. No package must leave the brewery without the proper government stamp. The stamps are kept in the general office vault and are issued to the shipping clerk as required upon properly signed requisitions. No orders can be filled by the shipping clerk unless recorded in the general office. The general office thereby has an effective check on all shipments thru the report of the shipping clerk on stamps used. The drivers, too, are charged with all packages turned over to them for delivery and must turn in daily the signed receipts from customers for all packages delivered. The drivers' delivery receipts are checked by the shipping clerk against the drivers' charge sheets and are then turned over to the bookkeeper for entry in the sales book. One can readily see the excellent control obtained by the proper coördination of orders, government stamps, shipping clerks' records, drivers' receipts, and sales accounts. If all these are combined with efficient collection, based upon the customers' own receipts, there is an adequate explanation of the consistent and satisfactory profits realized from the brewing business. If the auditor will investigate carefully accounts thru the records just described, he will find his work simple and eminently satisfactory to himself.

The other features to which an auditor must devote careful inquiry are the pay rolls, the Cash Account (especially the petty cash and collectors' funds), the expenses of agents, advertising, and the adequate bond-

ing of the employees handling money. Breweries are liberal spenders and allow their agents considerable amounts for securing new business; this liberality is often abused, and proper reports of their expenditures should therefore be presented by the agents.

Many breweries own saloons and other real estate. The income from these properties must be carefully verified by the auditor and the deeds to the properties examined. Adequate depreciation should be provided for both the real estate and the fixtures, which sometimes are also owned by the breweries.

Mines

The audit of mining accounts is very similar to that of timber companies. In both instances the income is derived from the sale of the property forming the basis of the capital investment, and the material cost of sales represents the depleted capital increment of the selling price. The estimate of ore available is the entire Deferred Cost of Sales Account and it is therefore the practice to relate all costs to the mined ton basis. Equipment, machinery, shafts, etc., should all be depreciated on a per ton mined basis, and will therefore be automatically written off (except the residual values) when the originally estimated quantities of ore have been produced and sold. Wages are based on the per ton output of the miners, even tho they may be paid according to per diem rates. The pay rolls must be carefully checked in order not only to verify their accuracy but to gain assurance that proper deductions have been made from the miners' pay checks for supplies sold them and for rents of houses furnished them by the company.

Many coal mines are operated under leases, and royalties are based on tonnage or on the dimensions of the seams worked. The royalty agreements must be carefully examined by the auditor; he must satisfy himself that the royalties have been fully included in the costs and that proper liabilities have been set up therefor. The payment of royalties should also be investigated to see that payment is made in accordance with contract stipulations.

The sales of ore or coal should be carefully compared with the production records and inventories. The weights produced, less quantities used by the companies themselves, after the application of beginning-and-end inventories, should agree approximately with the sales as indicated by the shipping weights.

Some mining companies own and operate short railroad lines, stamping mills, and smelting plants. The auditor should examine all such auxiliary activities very carefully. He should generally make sure that all income is fully accounted for, that production is efficient, and that the proper distinction is observed between charges to capital and income accounts. He must also be sure that the total of dividends declared does not exceed the sum of net profits and capital depletion; in this latter connection he should ascertain the correctness of the original estimate of ore or coal available.

Branch Accounts

The audit of branch accounts is almost entirely dependent upon the systems in use and the relations existing between the branches and the parent office. It can readily be appreciated that where the branch

carries stocks, makes its own sales and keeps the accounts receivable, finances itself out of its own collections, pays its salesmen and office help, nothing short of a complete audit of the branch, at the branch office, will be satisfactory. This is true even tho the branch may send in monthly, or more frequently, detailed reports of inventories, sales, expenses, collections, deposits, and cash balances. The auditor must, under such circumstances, go to the branch office in order to verify the reports sent to the home office and the branch controlling account kept in the home office general ledger. Wherever the branch keeps full accounts, as just indicated, the controlling account in the home office general ledger will represent the net investment in the branch office (namely, the branch cash, accounts receivable, inventories, office furniture, and fixtures, etc., less the liabilities). In preparing the balance sheet of the home office the branch account must be analyzed so that the various kinds of assets and liabilities may be properly distributed among the balance sheet accounts. The branch balance should never be considered an account receivable.

In some instances, where branches collect no cash and carry no accounts, but serve merely as distributing and selling media, it may not be necessary for an auditor to visit the branch office. Such branches are generally alloted a fixed working or cash fund, and all payments therefrom must be accompanied by proper vouchers or receipts before the home office will replenish the fund. These branches, however, carry inventories, and if the auditor accepts the branch managers' certificates therefor, he should so qualify his report. Branch inventories can, however, be checked quite accurately thru the records of shipments from the fac-

tory or home warehouse and thru the reports of branch sales; in fact, unless a reconciliation is obtainable on this basis the auditor should refuse to accept the branch managers' certificates and should plainly report the discrepancies. Branch inventories should be valued at cost or market (whichever is lower) for balance sheet purposes. Branch accounts receivable may very well be partly circularized. Many thefts of stock have been temporarily covered by fictitious accounts receivable. In the audit of a large manufacturing concern, it was found that a certain branch manager opened up an account with himself under a fictitious name, billed much of the stock, and then reported that the account was uncollectible because the buyer had departed to "parts unknown." The culprit was exposed thru the use of the city and telephone directories and by reference to the owner of the building whose address was given; these sources clearly indicated that the account was fictitious and led to a full confession.

No audit of branch accounts is complete without an investigation of the comparative costs of branch operations with regard to branch sales. An auditor can clearly reveal thereby the relative efficiency of the various branch managers. In tabulating the costs and sales it would, of course, be unjust to compare the results obtained two thousand miles away with the operations of a branch located one hundred miles from the parent office. Comparison of this kind to be of any value must be made between branches operating under similar conditions; a branch in existence for ten years should be more successful than one just established. The following factors must be taken into consideration:

1. Distance from parent office and local conditions affecting sales (that is, the presence of other competition).
2. Years in the field.
3. Effect of freight rates.
4. Support given by the parent office thru advertising, etc.
5. Kinds of product handled.
6. Extent of sales field and markets.
7. Populations served.
8. Effects of local conditions on expenses.
9. Experience of branch managers and their assistants.

CHAPTER XXXIII

THE AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Department Stores

The accounts of department stores are, as a rule, subjected to fairly efficient internal audit and control. The auditing department, however, primarily centers its activity on the sales, which are audited daily. The procedure for cash sales in the larger stores is as follows:

The cash sales tickets, which have been assembled from the department cashiers, are first sorted according to the various cashiers' numbers. Thereupon each cashier's tickets are gone over and segregated according to the numbers of the sales clerks, and finally each sales clerk's tickets are arranged in numerical order. The sales are then summarized on cashier sheets, each representing a department. On each of these sheets the sales clerks' numbers are spread across and each clerk's sales placed under his number; the sum of all the columns represent the total sales for the day for the particular department. The summary prepared from all the departmental sales sheets represents the total cash sales of the day and must agree with the cash turned over to the general cashier. In many stores, department cashiers have been eliminated and all cash goes thru tubes direct to the general cashier's office; in this case, however, certain cashiers receive

the money from certain departments and their receipts should agree with the summaries prepared from the records of the sales clerks.

The sales clerks' books form the basis of all sales auditing. Some stores use different books for each kind of sale; that is, they employ one book for cash sales, one for charge sales, and another for C. O. D. sales. Summaries of the charge and C. O. D. sales are prepared in the same manner as heretofore described for cash sales, and must agree with the general book entries. Other stores use sales books wherein the sales slip itself indicates whether the goods were sold for cash, charged, or sent C. O. D. The C. O. D. sales must agree with the records in the C. O. D. department, where all C. O. D.'s are independently recorded as a check on the drivers.

A professional auditor cannot be expected to check the detail work done by the auditing department of a store, but he should compare the various summaries prepared by it with the entries in the general books. The C. O. D. Account should receive careful attention; very often drivers neglect to make collection or the package has been improperly labeled, with the result that open balances appear in the C. O. D. ledger. The auditor should advise immediate collection of these accounts, and if the items appear at all suspicious he should request a direct confirmation from the customer of the balance due. There is always a possibility that the driver may have pocketed the money.

With regard to purchases, the auditor should examine closely the system of approving and verifying the bills, the plan used in the receiving department for guarding against shortages and defective goods,

and the provisions made for freight deductions and discounts. The better managed stores watch all these features very carefully and take discounts almost without exception. This is done so regularly that the purchase record in use is ordinarily provided with a discount column, sometimes called the "Anticipation Account."

It is not practicable for an auditor to vouch the expenses of a department store in detail. Certain accounts, however, should be examined with considerable care; executive and clerical salaries, the wages of drivers and packing department employees, insurance on stocks and fixtures, and depreciation accounts should be quite fully inspected. The pay rolls of the sales clerks should be compared with the store auditor's sales analysis, and any padding will at once be revealed by such a comparison. Drivers' pay rolls can be verified by comparing them with the delivery records. Any unusual variations in expenses between periods should be run down.

No audit of department store accounts is complete without an investigation of departmental profits and operations. All departmental accounts should be controlled thru the general books, and each department must be burdened with its proportionate share of general expenses. The auditor should therefore verify the charges to the departments for delivery expense, building depreciation, insurance and taxes, and all other expenses which are prorated. The basis of apportionment should be proper. All building expenses should be prorated to the departments according to relative floor space occupied; advertising expense, according to proportionate spaces utilized in the advertising media; and delivery expenses, either on a basis of

relative sales or according to the weights of articles delivered.

The accounts receivable should be aged, and proper reserves should exist for past due accounts. Inventories must be examined as to quantities, prices, and values, and proper depreciation should be provided for apparently unsalable merchandise. Certificates as to quantities on hand should be requested from the department heads. The various cash funds in the hands of the cashiers must be verified by actual count, and where redemption certificates or trading stamps are issued, the auditor must see that proper reserves are created to provide for the redemption thereof; this reserve need not be based on the entire quantity of stamps outstanding for, as a rule, a great many stamps are never presented. The auditor should ascertain the percentage of redemption to issue, and he should recommend that the reserve be constructed in accordance therewith.

Contractors

The accounts of contractors are essentially cost accounts; therefore proper cost accounting is necessary not only for securing data of particular contracts but in order to make correct estimates. Whether a contractor is engaged in building, excavating, or engineering work, it is necessary to secure accurate costs of all operations. Lack of proper cost systems has put many contracting firms into bankruptcy. On the other hand, some contractors have worked out their costs to such a fine point that many of their operations have become standardized. It is the auditor's duty to analyze and inspect the costs with great care; they form the basis of the largest asset account on

the contractor's balance sheet — namely, Work in Progress.

An effective accounting system for contractors provides for general ledger control over all contracts, the contracts themselves being specifically indicated in a contract ledger. A voucher register should be employed; this should provide columns for charges to General Stores and Supplies (for materials used generally and carried in stock), contract ledger, general expenses, and direct general ledger charges. The charges to General Stores and Supplies build up the inventories carried for general use, and include commodities like sand, gravel, cement, lime, lumber, etc. As these are needed for specific jobs or contracts, properly signed requisitions should be prepared for their withdrawal, the requisitions forming the basis for journal charges to the contracts. Purchases for specific contracts and for all expenses (pay rolls, etc.) chargeable direct to contracts, would be entered in the contract ledger column of the voucher register. The contract ledger itself should be an analysis ledger; each contract shown therein will be charged with materials used (indicating quantities and values of each kind), labor employed (hours, nature of work, and cost), and expenses. The ledger should be confined to contracts in progress so that the general ledger controlling account for work in progress may readily be verified therefrom. As soon as contracts have been completed, the following journal entry should be made:

Cost of Finished Contracts	**$........**	
Contract Ledger		**$........**

It is conservative policy entirely to ignore profits on unfinished work. Therefore the contracts receiv-

able ledger may either be treated as a memorandum record or be carried on the general ledger as a controlling account with a contra credit for Reserve for Unfinished Contracts. If the contracts provide for partial payments as certain portions of the work are completed, those portions may then be billed as accounts receivable, the entry being:

Accounts Receivable	\$........	
Contracts Billed (Income)		\$........

A corresponding reduction must, however, be made to the contracts receivable ledger and Reserve for Unfinished Contracts Accounts as follows:

Reserve for Unfinished Contracts	\$........	
Contracts Receivable Ledger		\$........

It would, of course, be permissible at the end of a fiscal period to take some part of the profit on contracts partially billed. The entire profit may be taken on partial billing if the latter covers some definite part of construction work for which all costs have been fully included.

To assure himself that stores are properly accounted for, the auditor should inspect the system thoroly. He must likewise investigate the methods of wage payment and the pay rolls; the men should be paid by employees who have no connection with the preparation of the pay rolls. Where cost accounts of adequate form are used, the pay rolls may be readily proved thru the daily time reports of the laborers, which are independent of the foremen's time books and relate to the distribution of employment on the various contracts. Where labor operations have been standardized, padding of pay rolls rarely occurs. Any padding

would immediately be made evident thru the increased labor cost.

Unfortunately, many contractors do not keep proper cost accounts. In such cases an auditor must verify the account for unfinished contracts from the certificates of engineers or architects; these indicate the quantity and value of the work completed from time to time, and form the basis for the partial payments on account. The auditor should secure such additional certificates as are necessary to prove the values of unfinished work not billed at the closing date of the period under review.

It is important that the auditor assure himself that all costs are included in the charges to the contract ledger, and especially that certain items often overlooked are fully considered. Such items are particularly the depreciation of machinery, equipment and tools, taxes and insurance on these, and general expenses growing directly out of the contractual relations.

In large building contracts much of the work is performed by sub-contractors engaged by the general contractor. The auditor must inspect the charges made by the sub-contractors very carefully; in every instance the charges ought to bear the approval of the general contractor's superintendent and should indicate formally the acceptance of the work as satisfactory. It should be remembered that the general contractor bills all the work completed by the sub-contractor, and that this work must be as fully acceptable to the owner as the work completed by the general contractor himself. It is also important that the auditor investigate any liens or claims of the sub-contractors against the general contractor, and that these be properly reserved

for. The owner will demand that the completed structure be turned over to him free of all liens or claims from sub-contractors or mechanics.

Professional Men

Professional men, with the exception of architects, rarely have their accounts audited; in fact, some of them keep no accounts at all or are content to limit themselves to duplicates of bills rendered for professional services. A public accountant may be of great service to these men by recommending simple and effective accounting systems.

Since the income of professional men is derived almost entirely from fees, it is important for the auditor to recommend a proper system for recording

ORIGINAL

Prescription No............

Patient ....

Address ....

Night Call............Day Call............Office............

℞

Dr............................

fees collectible. In the case of a doctor, it might be recommended that his prescription pad be so arranged that a carbon copy of each prescription written may be retained; the original and duplicate should bear the same number, and the sets should be consecutively numbered. The form on page 267 (in duplicate for each prescription) is suggested.

This original prescription should be perforated at the top so that it may readily be removed from the pad. The carbon copy thereof will remain in the pad or book and is therefore not to be perforated. This form will serve for night and day calls as well as for office visits. It should also be used when no prescription is written so that the pad will afford a complete record of all calls and office visits. The pad should be used at the end of each month for making out the bills to patients or for entry of charges in the patients' ledger. If the physician desires to keep a general ledger in addition, he should make a monthly journal entry charging patients' ledger and crediting Income from Night Calls, Day Calls, and Office Consultation respectively.

The auditor should carefully investigate all old accounts with patients and suggest proper reserves for those apparently uncollectible. The credits to patients' accounts should be examined, and where no cash book is used these should be reconciled, if possible, with the physician's bank deposits. The status of accounts turned over to collection agencies should also be determined. It is advisable, of course, for a physician to have a complete set of simple, effective bookkeeping records, to deposit all of his receipts, and to pay his bills for taxicab service, drugs, etc., by check. Some doctors supply their patients with

drugs and medicines. The auditor should then examine the purchase invoices and at least approximate the balances of stock on hand in order to state correctly the income for the period covered by the audit. Automobiles, buggies, and horses used in practice should be adequately depreciated.

Lawyers should keep close watch over the time given by them to clients; in fact, most fees, if cases are not taken on a contingency basis, are based on per diem rates. A lawyer may very well keep his accounts in the same manner as a public accountant; cases not taken on a flat fee or contingency basis should be charged according to the number of hours devoted to them.

It is customary for lawyers to handle many funds for their clients. These should always be kept distinct from a lawyer's personal funds. The auditor should strongly recommend such separation because the practice of treating clients' funds as part of his own may seriously affect the reputation of an attorney even tho no injury may have resulted. Whenever attorneys act as trustees for estates, the accounting for estate income and expenses must be carefully investigated.

The accounts of architects and architectural firms vary according to the size of their business. Comparatively few of the smaller firms ever have their accounts audited. The larger firms, however, frequently call in public accountants and have more or less efficient and extensive systems of accounting. The verification of income from fees and commissions is the most important feature in the audit of these accounts. As fees are generally based on certain percentages to contracts, architects must keep a record of contracts and the payments made to the contractors; fees are

payable to the architect as moneys are paid to the contractor. There is no difficulty in determining the amounts due, because usually the architect himself must pass on the work before the contractor is paid.

Expenditures must be carefully examined, as many of these may be chargeable to clients. The Accounts Receivable should reflect such expenditures in addition to the regular fee and commission charges.

CHAPTER XXXIV

THE AUDIT OF SPECIAL BUSINESS TYPES (Cont'd)

Oil Mills

One of the largest industrial activities in the South is the manufacture of cottonseed oil. Cotton seeds as picked are covered with a lint which is removed in the ginnery; the seed itself is composed of the hull and the kernel which contains the oil. The oil content represents about 20 per cent of the weight; that of the hull and kernel are about equal. Besides the crude oil, therefore, cottonseed mills produce a number of other products, namely, cottonseed meal, the linters, and the hulls. From the latter are obtained various by-products, such as cottonseed bran, stearin, and soap stock. The lint is sold as short cotton. After all lint has been removed from the seeds, the hulls and kernels are separated by being put into a reel. The hulls are baled or sacked and sold as stock feed. The kernels, after being crushed and cooked, are deposited in cake form between press cloth and the oil extracted by presses. The cake remaining after the process of oil extraction has been completed, is cracked and ground into meal or is sold as meal cake, in which event it is merely broken into pieces, Relatively little cottonseed oil is refined in the South; most of it is sold in the crude state to refining companies in the East.

In auditing the accounts of cottonseed oil mills, one of the most important tasks is the verification of the yield. The record of operations during previous years should be utilized in establishing some norm upon which to base proper judgment as to yield. The weight of seeds purchased must be checked up against production; there is, of course, a normal loss in weight because of seeds that cannot be used, but this loss should run fairly uniform over long periods of time. Any unusual shrinkages should be fully ironed out, as they may be due to manipulation of the production or inventory records. The purchases of seeds should be carefully vouched and the invoices compared with the stock records. The stock records should further be tied up with the payment of freight bills and the weights of the latter compared with the weights entered in the inventory accounts. The auditor should be able to prove the weights of production by using the following formula:

$$a + b - c = \text{production.}$$

a = the sales (by weight) of linters, hulls, meal, and oil.
b = the weight of linters, hulls, meal, and oil on hand at the end of the period.
c = the weight of linters, hulls, meal, and oil on hand at the beginning of the period.

Seeds which cannot be used for oil production should be accounted for thru Miscellaneous Sales or by adjustments to Inventory Account. An auditor's report should clearly indicate the sales as well as the seeds used, by weight. It should show the material cost per ton of sale as well as the per ton cost of operating. From such statements the proportional yields of oil, meal, hulls, and lint out of a ton of seeds will

be readily revealed. This should be of value for comparison with operating records of prior years and will afford a clue to other than normal differences between yields.

Cottonseed oil mills run double time or the full twenty-four hours for six months or less each year. Depreciation is therefore a very heavy expense and must be more than double the normal rates for an average ten-hour day run. In six months the mills run a greater number of hours than other manufacturing concerns do in a year. Where the normal running time of the latter is 3,000 hours per year, the oil mill will operate 3,600 hours in six months. The annual depreciation charges should be even greater than the percentage of excess, because machines in continuous service for twenty-four hours a day during a period of six months depreciate more rapidly than the above relation indicates; there are no idle periods for effective repairs, and the chances for sudden and disastrous breakdowns are greatly increased. Depreciation charges must therefore be very adequate. Moreover all other costs for the entire year must be absorbed into the operating period, for unless they are fully included during the period, the stated profits from operations may vanish entirely. The idle season for cottonseed oil mills is utilized for repairing the machinery and rehabilitating the plant. Rehabilitation expenditures should be charged against the depreciation reserve, and the repairs should be set up as a deferred charge to be written off during the operations of the following season; in this way each operating period will be burdened with the repairs which were made to put the plant in effective working condition. The auditor must exercise great care in analyzing these

disbursements in order to assure himself that the proper principles of accounting with reference to repairs and replacements have been observed.

Textile Mills

In the same degree that cottonseed oil mills are localized in the South, the textile mills are largely confined to the New England States. These enterprises form the bulk of the industrial activity of that section. Much good work has already been done by public accountants in standardizing the cost and general accounting systems of the textile companies, so that the public accountant called in to audit their accounts will usually find well-developed and properly controlled accounts.

As in the case of oil mills the important feature of the accounting here is the cost system. The auditor must therefore emphasize the examination of raw materials inventory accounts, the production as related to purchases and manufacturing costs, and the sales as based on production. The inventories of goods in process and of finished goods must be carefully inspected to ascertain whether the basis of valuation is correct. It is needless to say that the values must not exceed cost; on the contrary they should incorporate fully all legitimate elements of production costs. The methods of applying factory overhead or burden should be examined thoroly. As so much of the work in textile plants is performed by automatic machines with processes very clearly separated by departments, the proper proration of factory overhead is quite easily determinable.

Automobile Manufacturers

The automobile industry has come to be one of the greatest in the United States. Apparently because of the installation of effective cost systems and thru scientific management, the failures in this industry are now very few.

The demand for the well-known types of cars is so strong that the sales of manufacturers are practically assured for almost a year ahead. Orders for cars from local agents specify a given quantity and must be accompanied by cash deposits representing a percentage of the entire order. These deposits must be considered as liabilities until the orders have been filled. As the cars are shipped and billed, the Deposit Account should be reduced proportionately and transferred to the Sales Account. Some agents make a flat deposit which must be carried permanently as a liability or until the deposit is returned at the expiration of the agents' contracts.

A large item of expense, which should be carefully investigated, is the insurance carried on finished cars on hand, in transit, or with selling branches. Cars are sold to agents at flat prices, the prices to different agents varying sometimes according to the quantities sold under each contract; in addition, bonuses are paid some agents who sell cars in excess of a certain quota. Not only must the auditor examine the agents' contracts very carefully in order to verify the sales at the contract prices, but he must with equal care assure himself that all bonus calculations are proper.

Another large expense is for royalties. Many of the devices used on cars are patented, and royalties must be paid to the patent holders. As these devices

are used on practically all cars and as the cars are numbered consecutively, it is a fairly simple task to verify the Royalty Accounts. The inventories of accessories can be readily verified in the same way; the quantities on hand should be proved by ascertaining the quantities used on the cars manufactured. To the inventory of accessories on hand should be added the accessories purchased, and from the sum of these should be deducted the accessories used; the latter quantities may be determined by multiplying the accessories going with each car by the number of cars manufactured. If this procedure does not prove the quantities on hand, then some accessories have doubtless been sold independently; the Accessory Sales Account should remove any discrepancy.

A great many automobile manufacturers merely assemble cars; they buy all their parts and even their motors from other manufacturers. The purchase invoices for these parts must be examined quite thoroly and must be properly included in the inventory accounts. The auditor should also ascertain whether or not the officers of the company are interested financially in any of the companies from whom parts are purchased. Not many years ago, during the course of an audit of a large and well-known automobile company, it was discovered that the president of the company was heavily interested in a number of companies from whom many of the largest and most valuable parts were being purchased and at a price considerably above the market; the object here was apparently, because of a profit sharing arrangement with another company, to divert the profits of the automobile company to the other companies in which the president was a shareholder. It is the auditor's

duty to expose practices of this kind for the benefit of the entire body of stockholders, even tho the president and his followers may be in control.

The Advertising Account is a large one and should be checked to a certain degree from the advertisements themselves or, if conducted thru agencies, by means of the contracts. Extensive publicity campaigns are generally in progress among automobile manufacturers. These assume various forms, chief among which are transcontinental runs and the entry of stock cars in races or hill climbing tests. The expenditures in connection with these exhibitions are heavy and deserve careful scrutiny. Since new models are sold almost every year, the Deferred Advertising Expense Account should be very small; it should be limited largely to unexpired advertising contracts. There is nothing peculiar about the advertisements of automobile manufacturers and most of them are very similar. The future results of any specific insertion are therefore somewhat doubtful, and to defer the expense thereof is an act open to just criticism.

The Deposit Accounts to the credit of dealers, above referred to, should be verified by correspondence; it may be possible that interest is to be allowed on these accounts, and if so, the auditor must set up the accrued portions thereof. The Deposit Accounts should not be included with the accounts payable because they are deferred income accounts. However, until they are transferred to Income, they should be considered as liabilities. Very often the dealers or agents will charge the company for allowances made to their customers. In securing the dealers' confirmations with reference to the Deposit Accounts the auditor will doubtless find that they have claims which the automobile manu-

facturers may or may not have allowed. The claims of agents not recognized in the manufacturer's books should be thoroly investigated in connection with the contracts in force. The claims of agents for customers may in some instances have to be verified by corresponding directly with the customers; otherwise an unscrupulous dealer may very easily ask for allowances which he never granted his customers or he may call for free repair parts which he never furnished them.

The inventoried value of repair parts must be investigated with great care. The manufacturer must, of course, keep certain quantities of repair parts on hand; many of these will be for cars sold in past years, and it is a difficult task indeed to anticipate correctly the quantities that will be required. Some manufacturers base the manufacture of repair parts on past experiences with other models of cars, but never make more than a limited number at a time; they guard against complete exhaustion by carrying a low minimum and by making a reduction in each new production order. The reduction in the order is based upon the gradual decline in demand for the parts. In almost every factory, however, the auditor will find a considerable quantity of repair parts that will probably never be called for; these inventories should be reduced to scrap value.

CHAPTER XXXV

THE AUDIT OF MUNICIPAL ACCOUNTS

It is a deplorable fact that the vast majority of municipal accounting systems are woefully inadequate. With few exceptions, the accounts of cities are kept on a cash basis with no attempt to relate the various departmental expenses to the services rendered the public. No standards of efficiency have been created, no unit costs have been formulated, and no definite harmony has been established between the anticipated revenues and the estimated expenses. In many instances the results have been little short of chaotic. The ordinary cash book of a municipality is a hodge-podge of columns subdivided according to departments and bureaus, with no attempt at a proper classification of the sources of revenue.

In a few localities the public has rebelled against the ridiculous inefficiency of municipal accounting and financing, with the result that bureaus of municipal research have been organized. These bureaus have done much good in cities where it has been possible to limit the control of unscrupulous politicians; in many places, however, their efforts have been practically nullified by political grafters, whose wrong-doings were being exposed thereby.

The accounts of cities fall into two general groups, namely, the proprietary accounts and the fund accounts. The proprietary accounts, as indicated by the name,

deal with the properties owned and their operation. The fund accounts are concerned with the legal limitations placed upon the city officials with reference to expenditures.

The expenses of a city are in reality predetermined; each year the various department heads prepare estimates of the funds they will require for the next year. These estimates are passed upon by the finance committee of the city council; the finance committee then recommends to the city council that the various amounts required be allotted to the departments and bureaus. The sum of all the allotments, or appropriations, is the city budget, and no department may spend in excess of its appropriation unless an additional appropriation is obtained from the city council.

After an estimate has been made of the revenues to be derived from the municipal enterprises and from franchises, fees, fines, rents, licenses, etc., the total is deducted from the sum of the appropriations to the departments. The difference will represent the amount which must be raised by general taxation; this latter amount, divided by the total assessed value of real and personal property, furnishes the tax rate. The opening entries for a year must indicate the sources of the estimated revenue and the allotment thereof to the various departments. They would be expressed in somewhat the following manner:

1. Estimated Income:		
Municipal Enterprises	$........	
Taxation	....	
Franchises	....	
Licenses	....	
Miscellaneous Sources	....	
Income Available for Appropriations . . .		$........
To record estimated income for the year available for appropriations.		

2. Income Available for Appropriations . .		$........	
Appropriation Ledger			$........
To record appropriations made by the city council to the departments as follows:			
Police Department . .	$........		
Fire Department . . .	....		
Department of Streets, etc., etc.	....		
Total Appropriations .	$........		

The credit to Appropriation Ledger Account is posted in total to a general ledger account bearing that name, which thereupon becomes the controlling account for the sum of the various departmental appropriations which are entered individually in a subsidiary appropriation ledger. The warrant register should contain a column headed "Appropriation Ledger," in which all disbursements chargeable to the appropriation accounts must be entered. The individual entries in this column will be charged to the proper appropriation account in the subsidiary ledger, and the total of the column will be debited at the end of each month to the appropriation ledger controlling account in the general ledger.

There are, however, other charges against the appropriation accounts; these are the so-called "encumbrances" or unpaid liabilities; they take the form of contracts, or open, unfilled purchase orders. It is therefore necessary to have a contract ledger and a purchase ledger, in which will be entered all contracts made by the various departments and the orders placed by them respectively. The contract and the open purchase order ledgers may either be made an integral part of the accounting system or be treated as memoranda records. In either event the encumbrances

recorded therein must be deducted from the balances in the appropriation accounts to show the free balance available for use for each department or division. Contracts are specific in their amounts, and the contract ledger should therefore be actually tied up with the general books. As the departments enter into contracts, their appropriation accounts should be charged and a Contract Reserve Account credited; the latter account will be cleared from the books by the charges from vouchers issued in payment of contracts. When a purchase order is placed, it is not always possible to estimate the final cost thereof. It is then sometimes feasible to carry the purchase order ledger as a memorandum record; in the latter event, the appropriation accounts would be charged directly with vouchers in payment of purchase orders and at the end of each month the unfilled orders would be considered as additional encumbrance so that the free balance could be properly shown.

The contract ledger, arranged by departments, should indicate the name of the contractor, the number of the contract, the nature of the work performed or the materials furnished, the date, the payments made, and the voucher numbers for the payments. The vouchers are charges not to the departments, but to the Contract Reserve Account, the departments having already been charged with the full contract originally and the reserve credited. The purchase order ledger, also arranged by departments, must indicate the order number, the date, the date promised, the date filled, the estimated amount (forming the basis of the encumbrance), the date paid, the voucher number, and the amount paid. The difference between the estimate and the amount paid columns will at any day represent

the current encumbrance against the departmental appropriations for unfilled orders.

The fund ledger is of equal importance with the appropriation ledger, and the two can be very conveniently tied up with each other. All receipts are chargeable to the treasurer and should be credited to the proper fund account. The disbursements for certain departments must come out of specified funds; in fact, some funds are limited very specifically for the use of certain departments. Since all funds are charged to the treasurer, the disbursements must be credited to him under each fund account. It is therefore advisable that in each fund account the following information be afforded—date of payment, voucher number, appropriation account charged and amount. In view of the fact that the appropriation ledger indicates the vouchers charged against the appropriation accounts, the inclusion of the appropriation account name in the fund ledger will afford an excellent means for cross checking between the two ledgers. To facilitate this even further, it is recommended that the appropriation ledger contain (besides the date, voucher number, name of payee, and amount of the voucher) a column wherein the name of the fund account may be entered; the cross reference would then be absolutely complete.

It is impossible to discuss fully, in a book of this kind, the detailed accounting procedure of municipalities. Stress must be laid here not on accounting but on auditing procedure.[1]

[1] The accounts of state universities are similar to municipal accounts. A fair knowledge of the accounting procedure of one of the largest state universities may be gained by reference to articles of the author in the February and March, 1916, numbers of the *Journal of Accountancy* on "Accounting Procedure for State Universities."

The methods of accounting for income from general taxation must receive very close scrutiny. The taxes collected should agree with the amounts assessed in the tax roll, and any alterations in the assessments must be substantiated by proper authorizations. The taxes uncollected must agree with the general ledger controlling account for taxes receivable, this latter account originally representing the entire tax roll.[2] Taxes in arrears must be fully noted, as these are liens against the property; when paid, the proper amount of penalty or interest collected therewith must be fully accounted for in the books. In some cities, after a specified time the tax liens are sold or the property itself is impounded; all such income must be ascertained and proved, and the auditor must satisfy himself that proper settlement has been made with the property owner.

Special assessments for local improvements are very often collected in installments. The installments include the payment of principal, interest, and sometimes of penalties. The auditor must see that the various increments included in the payments are properly accounted for. Here the entire procedure in connection with the local improvements should be investigated; the city generally issues bonds to defray the expenditures for the improvement, and retires the bonds as the assessments are paid by the public. The interest on these bonds should be fully recovered thru the interest charged on the deferred installment payments. The

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[2] The Taxes Receivable Account is placed on the books after the tax roll has been completed. At that time the estimated Tax Revenue Account is credited and the account for taxes receivable is charged. Assessments collected are, of course, credited to the Taxes Receivable Account.

provisions governing the retirement of the bonds should be complied with fully and the funds derived from the collection of assessments should be properly reserved to pay the bonds as they fall due.

The income from franchises, rents, licenses, and other sources should be verified thru an inspection of the franchises, the rental agreements, and the subsidiary records detailing the location of saloons, stores, and other license paying bodies. Some franchises provide that the city receive a percentage of the net profits of the franchise holder, the city in that event being granted permission to audit the franchise holder's books. This audit may be conducted by the city officials themselves or by a professional accountant; in the latter event the accounts of the franchise holder must be very closely analyzed, especially with reference to charges against income.

As the department heads are very careful that their appropriations fully meet their annual requirements, the approval of vouchers charged to the departments receives detailed attention. All vouchers must be approved by the department heads and must be accompanied by evidences covering the receipt of goods or of services rendered. The auditor must, however, give special attention to any unusual expenditures; he must make sure that the disbursements have been made from the proper funds and that the right departments have been charged therewith. He must also analyze the vouchers from the standpoint of account classification, so as to be certain that the proper distinction has been observed between charges to capital and income accounts. This precaution is necessary in order to verify the additions that have been made during a fiscal period to the city's asset accounts. Tests should

be made with reference to prices paid by the city for standard commodities, that there may be no abuses or graft in the buying. In the best governed cities all purchasing is in the hands of a single purchasing department. The advantages of such an arrangement are obvious; larger quantities can be bought at reduced prices, inventories may be properly controlled, and the dangers of graft are reduced to a minimum. It is much easier to inspect and to control a centralized activity.

Where cities own public service facilities, such as water, gas, and electric lighting plants, and street railways, it is important that the proper accounting principles be applied in connection with their operation. Unfortunately this is not always done and one element of cost is generally omitted—namely, depreciation. Tho it would be improper to set up a reserve for depreciation as in the case of private corporations, provision therefor should be made by annual appropriations for the estimated cost of replacement. The funds thus obtained could be invested in such a way that the combined principal and interest accumulations would suffice for the eventual restoration of the property. In this way each year would be burdened with its just share of depreciation, the bonds originally issued for the properties would be perpetually secured, and no single generation would be excessively burdened with an expense which prior generations had refused to consider. The bonds issued when the properties were originally acquired would not have to be retired, but could easily be renewed because of the unchanged character of the security. The interest on the bonds should, of course, be defrayed from the net income of the various municipal enterprises and not from taxation.

Auditors will doubtless be called upon shortly to direct some of their energies to forming adequate accounting systems for municipalities. Sporadic efforts have already been made in this direction, some resulting in great good, others, not being properly guided, producing only mediocre results. The following suggestions are hazarded by us:

1. In order to gain the proper cohesion and coöperation between departments and the controlling elements in city organization, there must be a thoro study of functional relations; from such study, organization charts should be prepared. These would readily indicate any need of rearrangement.
2. All functions of similar character should be centralized and put under effective control. Thus, the purchasing activity, now so frequently allocated to all departments, should be put under central control; this would provide for enormous economies and proper control of stores.
3. From the expenditures for past years a uniform classification of expenditures adaptable to all departments should be introduced. This classification should be such that a clear distinction will be observed between expenditures for capital additions and for operating expenses. The additions to property accounts should, of course, be controlled thru the proper records related to the department appropriation accounts.
4. All city property should be inventoried and carried in properly grouped accounts on the balance sheet. By a proper relation between the capital expenditures chargeable to department appropriations, these capital accounts could be kept right up to date. All obligations and liabilities should be fully expressed in the accounts and a proper showing should be made of corresponding requirements and reserves.
5. All accounting should be under the control of one department.

6. The accounts should be kept on an income and expense rather than on a cash basis and should be fully controlled by a general ledger.
7. Unit costs and job costs should be established and standardized wherever possible.
8. Budgets should be functional as well as departmental and divisional.
9. Uniform monthly reports of all operations should be prepared for the city officials and the public.
10. The operating activities should not only be reflected in operating statements but should become equally evident thru the changes in the balance sheet.

CHAPTER XXXVI

MISCELLANEOUS AUDITS

In the previous chapters, the procedure necessary for the effective audit of some well-known forms of business organization has been recommended. There are, however, special audits having certain peculiarities which must be covered in a work of this kind. It will be impossible to discuss all of these and we shall therefore confine ourselves to the following:

1. Trustees' and executors' accounts.
2. The accounts of educational institutions.
3. Club accounts.
4. The accounts of charitable institutions.
5. Hotel accounts.
6. The accounts of theatres.

Trustees' and Executors' Accounts

The accounting for estates is regulated by state law and the legal requirements are becoming more rigid. The result has been that public accountants are being asked more frequently to give advice on estate accounting and to examine the accounts of administrators and executors.

Administrators and executors in the technical sense are court officials, who have been chosen to close up the affairs of a decedent's personal estate. Their functions

consist of the collection or conversion into cash of the personal property of the deceased, of the payment of his debts, and of the distribution of the remaining personal property according to either the provisions of intestate law or the will of the testator. The administrator is appointed by the court when there is no will; the executor is designated by the testator in the will and is approved by the court. The functions of the two are identical. They both differ from a trustee, the latter being one who is given temporary or sometimes extended title to specific property which he must dispose of or hold (subject to the provisions of a trust indenture) for the benefit of another person designated in the law as the "cestui."

The auditor's first duty is to read the will (if there be one), to determine whether the will has been properly probated and whether the executor named therein has received the court's approbation and has filed a satisfactory bond if the state laws demand it. Wherever the state laws demand that the executor file an inventory of the personal property of the decedent, the auditor should obtain a copy of the inventory thus filed and compare it with the opening entries in the executor's accounts. The inventory filed with the court and the executor's books should specify the personal property in detail, and the values thereof should be based on an impartial appraisal; the debts should not be filed unless this is required by law, because the gross estate must not be diminished for the benefit of any particular creditors.

After having satisfied himself that all preliminaries required by law were complied with, the auditor must next determine, if possible, whether the entire personal estate is in possession of the executor. There may be

assets in the hands of persons who have refused delivery thereof to the executor, and proper legal steps should appear to have been taken by the executor to gain possession of such assets. All cash of the decedent should be deposited in the bank in the name of the estate, and all other personal property must be preserved with the same degree of care as the executor gives to his own property. The executor's duty is not to retain the personal property but to convert it into cash and to distribute the cash among the beneficiaries named in the will. The investigation of the conversion of the personal estate into cash or of its distribution in other forms, as provided by the will, is of very great importance; the auditor must be sure that the realization from the sale of assets is complete, that no improper deductions have been made therefrom, and that property not converted is distributed on the proper basis.

The administrator has a preferred claim covering his own and the funeral expenses. These, as a rule, must be paid before the claims of creditors. All debts against the decedent at the time of his death come next, and must be paid in the order prescribed by law; if not so paid and if no further funds are available, the executor may become personally liable. The order of payment is generally as follows: first, debts due the national government; second, state and local taxes; third, claims reduced to judgment; and fourth, the claims of regular creditors.

The auditor may be engaged by either the estate or the executor; in either event his efforts should protect both, thru a careful consideration of the assets to be accounted for, the claims to be liquidated, the expenses to be paid, and the distribution of the residuum

to the legatees, or heirs. Legacies must not be paid until the time specified by the court or until there is complete assurance that all creditors have been fully satisfied. After the executor has performed all these various duties, he must present his final accounting to the court. As it is generally the final accounting which is submitted for audit, it is of the very greatest importance that the audit be quite detailed and thoro; the final accounting is the basis of the court's order for the distribution of the estate.

An estate in trust generally consists of real or other property conveyed to an individual or organization as trustee. The trustee must preserve the property intact and must dispose of its income as provided by the trust agreement. The most important task of the auditor is therefore to ascertain that the principal remains untouched, that the distinction between principal and income be religiously observed in all the trustee's activities, and that this distribution be properly recorded in the books. This is not always so simple. For example, a dividend received after the testator's death may be either principal or income. If declared before the date of death, it is principal; if after that date, it is income, the date of the dividend declaration and not its receipt being the governing factor.

Not only must all the assets held by the trustee be fully examined and proved (by actual count in the case of securities), but the income therefrom must be fully accounted for in detail. All expenditures must be accompanied by proper vouchers. The commissions taken by the trustee on net increases of investments (thru reinvestments) and for distributing and accounting for the income, must be proper and in accordance with the law or the will as the case may be. The

nature of trust investments is fixed by law. As a rule they are limited to real estate mortgages, approved first-mortgage railroad bonds, and government securities. Losses ensuing from illegal investments must be borne by the trustee. The auditor must also ascertain that the trust funds are kept separate and distinct from the trustee's personal funds and that they are separately accounted for.

During the administration of a trust the following are regarded as reducing principal:

1. Premiums on securities purchased. (These should be amortized during the life of the securities and a portion of the interest received on the securities set aside to offset the annual premium amortization).
2. Losses ensuing from the liquidation of approved investments.
3. Losses of property which are beyond human control or which cannot be compensated for by insurance.
4. Shrinkages in values due to obsolescence which could not be foreseen.

Accretions to principal are occasioned by the following factors:

1. Increases in the values of real property due to the passing of time.
2. Profits on the sale of investments.
3. Discounts on securities purchased.

The Accounts of Educational Institutions

Universities either are privately endowed or are state institutions. The accounts need not vary, however, except with reference to the classification of

income. Both derive funds from matriculation, tuition and laboratory fees, and in some cases from dormitories and sales of various products; but these classes of income form a relatively small portion of the entire income of most universities and colleges. The great bulk of income is derived either from funds provided by state taxation or national government support in the case of state universities, or from interest on investments in the case of privately endowed universities.

We have already described very fully the accounting or auditing procedure necessary for appropriation accounts in connection with municipalities; the appropriation accounts of universities are constructed in exactly the same way. As certain disbursements for departments must come from specific funds, universities also keep fund accounts. The withdrawals from the various funds (thru voucher) must agree at all times with the voucher charges to the departmental appropriation accounts. Universities, like municipalities, keep account of their contracts and open market orders, both being regarded as encumbrances against the departmental appropriations.

In auditing university accounts, the largest and to a certain degree, the most important task is the vouching of the disbursements; the vouchers must not only be withdrawals from the proper funds and charges to the proper department appropriations, but they must be charged to the proper account classification under each appropriation account. Some of the leading state universities of the Middle West recently adopted (with necessary modifications to meet local conditions) the following uniform classification of expenditures, which provides for both an organization (functional) and a commodity or service distribution:

ORGANIZATION CLASSIFICATION

1. Administration and General.
    - (a) Executive Offices.
        - Board of Trustees.
        - President.
        - Vice President.
        - Business Office.
        - Registrar.
        - Legal Counsel.
        - Adviser to Foreign Students.
        - Council of Administration.
        - University Senate.
    - (b) General Offices.
        - Dean of Men.
        - Dean of Women.
        - High School Visitor.
        - Information Office.
    - (c) General Accounts.
        - Publications.
        - Lectures.
        - Concerts.
        - Convocations.
        - Receptions and Social Functions.
2. Instruction and Research.
    - Liberal Arts and Sciences.
    - Engineering.
    - Agriculture.
    - Graduate School.
    - Medicine.
    - Dentistry.
    - Pharmacy.
    - Commerce.
    - Law.
    - Music.
    - Library Science.
    - Summer Session.

3. General Departments.
   - Library.
   - Physical Training for Men.
   - Physical Training for Women.
   - Military.
   - Health Service.
   - Water Survey.
4. Physical Plant Operation and Maintenance.
   - Administration.
   - Building Operation.
   - Building Maintenance.
   - Power Plant.
   - Telephone Exchange.
   - Grounds.
5. Land, Buildings, and Plant Extension.
   - Purchase of Land.
   - Land Improvement.
   - New Buildings and Additions.
   - Service Plant Extension.

SERVICE AND COMMODITY CLASSIFICATION

1 Expense (Revenue Expenditure).
- 11 Salaries and Wages.
  - 111 Instruction and Research.
    - 1111 Professors (including Deans' instruction).
    - 1112 Associate Professors.
    - 1113 Assistant Professors.
    - 1114 Associates.
    - 1115 Instructors.
    - 1116 Assistants.
    - 1117 Lecturers.
    - 1118 Fellows and Scholars and Student Assistants.
    - 1119 Technical Assistants and Service Men.
  - 112 Administration.
    - 1121 Officers.
    - 1122 Clerical.

113 Lectures and Entertainments.
114 Labor and Unclassified Service.
12 Material, Supplies, etc.
121 Communication Service.
1211 Postage.
1212 Telephone and Telegraph.
122 Stationery and Office Supplies.
123 Publications.
124 Traveling Expense.
125 Freight, Express, and Cartage.
126 Repairs.
1261 Furniture and Apparatus Repairs.
1262 Building Repairs.
1263 Land Maintenance.
127 Supplies for Instruction.
128 General Supplies.
1281 Building Supplies.
1282 Farm Supplies.
129 Sundries.
1291 Office.
1292 General.
2 Equipment (Capital Expenditure).
21 Equipment.
211 Apparatus.
212 Furniture and Office Equipment.
213 Books.
214 Machinery and Tools.
215 Live Stock.
216 Specimens and Collections.
22 Land and Buildings.
221 Land and Land Improvements.
222 New Buildings and Additions.

The income provided for state universities from state funds, derived from taxation, can readily be verified from the legislative appropriation bill and the balances

in the various state funds by communicating with the state treasurer's office. Tuition fees can be proved in totals from the register of enrolled students in the catalog or from the published student directory, after making the necessary provisions for scholarships, fellowships, and reduced fees. Diploma fees may be verified from the list of graduates and recipients of higher degrees as shown in the university catalog. Laboratory fees may be accounted for thru the enrollment of students in courses where laboratory fees are charged. Departmental sales can be verified by reference to production records (in the case of agricultural departments) or to the sales data kept by the departments; the income from departmental sales for the colleges of agriculture is generally credited to the departmental appropriation accounts. As a rule, therefore, the departments themselves may be relied upon to account quite fully and accurately for the income from their own sales.

In privately endowed schools, where the income is derived largely from investments, the investments themselves must be verified by actual count and inspection (in the case of securities), by reference to the deeds to property, and by inspection of the agreements with donors. The income from these various investments and properties must be verified in the usual way as heretofore outlined.

What has been said regarding the opportunity for improvement in business procedure and accounting systems of municipalities, may be applied with the same force and in substantially the same way to educational institutions. The auditor will often find opportunity to render valuable services along these lines.

CHAPTER XXXVII

MISCELLANEOUS AUDITS (Cont'd)

Club and Hotel Accounts

Club and hotel accounts are so similar in many respects that they may be considered together. A club is virtually a hotel for members only, with certain additional social features not offered by hotels. Moreover the hotel charges are generally collected in cash as the guest departs, whereas the club extends credit to its members.

The most important thing an auditor should do when called in to audit clubs or hotels, is to examine thoroly the system of accounts in use. The larger hotels have provided effective safeguards for their accounting; this is essential, since most of their income is in cash. The revenue of hotels may be conveniently divided into income from rooms, from restaurants, from bars and cigar counters, and from rents.

The income from rooms can be verified from a number of sources. In the first place the guest register contains the names of all who have in any way utilized the hotel facilities. Consequently for each registration there should be a charge on the room ledger or a cash entry for meals if no room was occupied; or, if the guest had an account, a charge should appear in the accounts receivable ledger. A comparison of all these charges with the guest register is the most

direct check on room revenue; it should, however, be supplemented by comparing with the guest register the housekeeper's record of rooms occupied and vacated.

Some hotels require their guests to register on cards, the cards, at one and the same time, serving as a ledger for current charges against the guests and as the file for occupied rooms (the room tray). Such cards are numbered consecutively and each number must therefore be fully accounted for; each card provides also for charges made to the guest's account covering telephone calls, meals, laundry, etc. The card tray is in reality a bookkeeper's ledger; when the guest departs, he calls for his account. The bookkeeper foots up the amounts as indicated by the card, passes it over to the cashier, and instructs the guest to pay his bill at the cashier's window. The card is then stamped paid, the amount collected is entered in the cash book (properly distributed and classified), and the cashier then returns the "paid" card to the bookkeeper to be filed by number. It is to be noted that when the guest originally registers on the card a carbon copy is obtained of his registration, which may be used for the mail tray or room tray if it is found undesirable to combine the room tray with the bookkeeper's file. It is essential that the collection of cash be entirely divorced from the activities of the desk (or registry) clerk and the bookkeeper.

Income from the restaurants may be verified by checking the cash and charge tickets (which should be consecutively numbered) turned in by the restaurant cashier against the chef's records of meals prepared and served. The entire restaurant operations must also be related to the inventories of food supplies. Income from bars and cigar counters should be verified

from the cash registers and from the commissary records of liquors and cigars turned over to the bars and cigar counters respectively.

Many hotel companies sublet certain spaces (especially on the ground floor) for stores. The auditor must examine the leases and verify the income from rents in accordance with the lease provisions.

The inventory accounts must be carefully examined and all purchases evidenced by proper vouchers. The pay rolls must be fully checked, the accounts receivable scrutinized, and, if necessary, circularized for confirmation, and the depreciation rates on furniture, linens, glassware, etc., inspected.

Club accounts, as a rule, are not so well safeguarded as hotel accounts, and the dangers from peculation are much greater. Wherever possible the cashier's functions should be entirely separated from the bookkeeping. Members should be requested to pay their bills by check rather than in currency, and all charge or sale forms should be numbered consecutively. Membership dues may be verified from membership rolls and from the minute book wherein the names of new members are indicated. Revenue from rooms should be tied up with the housekeeper's record of rooms occupied. As in the case of hotels the income from restaurants and bars should be reconciled with the inventory records and proper depreciation provided for club room furniture, club building, and other property.

The Accounts of Charitable Institutions

Charitable institutions are either public or private. Institutions like orphanages, asylums, and hospitals operated by the states are generally audited by representatives of the state administration. State institutions

derive their income almost entirely from government appropriations which are more or less limited as to their use. In auditing such accounts the charges to the various appropriations must be carefully inspected and they should be evidenced by properly authorized vouchers. The income from pay patients should be checked from the registration records.

Privately endowed charitable institutions are supported by donations or as in the case of hospitals by donations and income from patients. Donations may usually be verified from published lists of donors or by corresponding with the donors themselves whenever the published lists do not specify amounts and there is a suspicion of irregularities. Many private charities keep their accounts on a cash basis, with the result that their operations are not properly recorded. The books should show the entire revenue earned and the actual cost of operations.

The Accounts of Theatres

As the income of theatres is practically all cash, the audit of the Cash Account is of the very greatest importance. Because of the great amount of detail, the auditor cannot be expected to audit the Cash Account in full; the treasurer is expected to do this detail work. It will be necessary, however, to make a number of exhaustive tests. In the regular theatres the tickets presented by the audience are torn by the doorkeeper and the seat coupon is retained by the spectator; the part retained by the doorkeeper bears the same seat number and date as the seat coupon. The cancelled tickets should be retained for a period so as to afford an opportunity for either external or

internal audit at some future time, and they should be arranged by dates and in groups under each date according to the various prices of different sections of the house. The revenue reported for each day should equal the amounts determined by multiplying the number of tickets in each group by the group rate. All tickets should be numbered so that the entire capacity of the house can be accounted for; the unsold tickets must supply the numbers unaccounted for by the cancelled tickets. Allowance must, of course, be made for complimentaries, but all complimentaries must be properly authorized by the management.

The income from ticket sales in moving picture or vaudeville houses, where the strip, or tape, ticket is used, can readily be verified. The numbers used during an entire season should be consecutively numbered. If such a plan is followed, the entire income can be verified by taking the number of the first unused ticket from the strip or roll of strip which was used last in the season. This gives the total number of tickets sold, and is to be multiplied by the ticket rate—or rates, if there are various strips for different sections of the theatre. There may be a free list, and proper deduction should be made therefor; the auditor must, however, secure the proper authorization for any free list.

The admission charges of all theatres (except where there are personal guarantees), should be ample to provide for all expenses of management and operation, and for a profit. The auditor should see that proper provision has been made for depreciation and all accrued expense (at the end of any period) and that nothing which rightfully belongs there has been omitted from the operations of a period.

CHAPTER XXXVIII

THE MODEL AUDIT REPORT

An auditor's report is composed primarily of two general sections, the first being the text, the second the statements. The report may be supplemented by a balance sheet certificate, which is generally used by the client for publication or for inclusion in the annual corporation reports.

The text section of the report should contain a very clear and specific explanation of the results from operations, followed by a discussion of the balance sheet accounts. To this should be added a paragraph outlining the scope of the audit, followed by comments on the client's system of accounts and recommendations for its improvement, if necessary. The following sample will probably illustrate clearly the essentials of a good audit report:

BROWN, SMITH & COMPANY

Certified Public Accountants

Chicago, February 15, 1918

Mr. Roman Patrician, President
X. Y. Z. Manufacturing Company
Chicago, Illinois

Dear Sir:

As instructed, we have audited the books and accounts of the X. Y. Z. Manufacturing Company for the year ending December 31, 1917. We submit the following statements showing the results of operations, and the financial condition of the company at December 31, 1917.

Balance Sheet at December 31, 1917	Exhibit I
Profit and Loss Statement for the year ending December 31, 1917	Exhibit II
Comparison of the Cost of Sales for the years ending December 31, 1916, and December 31, 1917 . . .	Exhibit IIa
Comparison of Selling and Administration Expenses for the years ending December 31, 1916, and December 31, 1917	Exhibit IIb
Comparison of Balance Sheets, December 31, 1916, and December 31, 1917	Exhibit III

RESULTS OF OPERATIONS

The surplus net profits for the year ending December 31, 1917, amounted to $350,000.00, an increase of $75,000.00 over the previous year. The following is a condensed summary of the operations for the past two years:

	Year ending Dec. 31, 1916	Percentage to Sales	Year ending Dec. 31, 1917	Percentage to Sales	Increase
Sales (net)	$1,250,000.00	....	$1,500,000.00	....	$250,000.00
Deduct--Cost of Sales . .	750,000.00	60.0	900,000.00	60.0	150,000.00
Gross Profit	$ 500,000.00	40.0	$ 600,000.00	40.0	$100,000.00
Deduct--Selling and Administration Expenses	220,000.00	17.6	240,000.00	16.0	20,000.00
Net Profit from Operations	$ 280,000.00	22.4	$ 360,000.00	24.0	$ 80,000.00
Deduct--Interest on Bonds and Loans . . .	5,000.00	.4	10,000.00	.67	5,000.00
Surplus Net Profit . .	$ 275,000.00	22.0	$ 350,000.00	23.33	$ 75,000.00

The increase in sales during the year 1917 over those of the prior year was due almost entirely to higher prices obtained for the company's product. The following classification of sales by types of product fully reflects this fact:

	Sales 1916			Sales 1917			Increase		
	Units	Price	Value	Units	Price	Value	Due to Increased Volume	Due to Increased Price	Total Increase
Commodity A . .	500	$1,000	$ 500,000	502	$1,100	$ 552,200	$ 2,200	$ 50,000	$ 52,200
Commodity B . .	300	1,200	360,000	305	1,400	427,000	7,000	60,000	67,000
Commodity C . .	200	1,950	390,000	210	2,480	520,800	24,800	106,000	130,800
	1,000		$1,250,000	1,017		$1,500,000	$34,000	$216,000	$250,000

The foregoing table indicates that $216,000.00, or 86.4%, of the sales increase of 1917 was due to increased prices and that only 13.6% was due to increased volume.

It is to be noted that the cost of sales for the year 1917 represents the same percentage to sales as in 1916. This indicates that the costs went up in exact proportion to the increased sales. The rise in costs was due to increased prices paid for materials and to higher labor costs; these facts are clearly shown in Exhibit IIa.

Comparative unit costs on the various commodities sold during 1916 and 1917 may be summarized as follows:

	Costs 1916			Costs 1917			Increase		
	Units	Unit Cost	Total Cost	Units	Unit Cost	Total Cost	Due to Inc. Sales	Due to Inc. Costs	Total Increase
Commodity A . .	500	$ 630	$315,000	502	$ 663.35	$333,000	$ 1,336.70	$ 16,663.30	$ 18,000
Commodity B . .	300	600	180,000	305	885.25	270,000	1,426.25	88,573.75	90,000
Commodity C . .	200	1,275	255,000	210	1,414.28	297,000	14,142.80	27,857.20	42,000
	1,000		$750,000	1,017		$900,000	$16,905.75	$133,094.25	$150,000

This table indicates the following facts regarding production:

The 1917 unit cost of Commodity A increased 5.3% over 1916.
The 1917 unit cost of Commodity B increased 47.5% over 1916.
The 1917 unit cost of Commodity C increased 10.9% over 1916.

The increases in the costs of Commodities A and C are due entirely to normal increases in the prices of raw materials and labor. The large increase of 47.5% in the costs of Commodity B is due to a number of unusual conditions, chief among which are the following:

1. The high duties paid on imported materials together with the extraordinary high prices thereof (the company's former supply, purchased before the war, having been entirely exhausted shortly after the beginning of the year 1917).

2. The extra heavy insurance, taxes, and freight paid on the expensive material just referred to.

3. The very high price paid for the extra skilled labor utilized in the production of this commodity (the greater portion of this labor having been imported from France, the company paying for the labor transportation).

These three factors alone account for over 40% of the increased cost, the rest of the increase being due to normally increased labor and material costs.

The selling and administrative expenses increased for the year 1917 because of larger traveling expenses, higher salaries of travelers, heavier advertising, and larger federal income taxes. The details of these expenses as compared with the year 1916 are shown in Exhibit IIb.

BALANCE SHEET

Cash--$61,572.34

The Cash Account consisted of the following items:

Cash in Bank	$59,072.34
Petty Cash Fund	1,000.00
Salesmen's Traveling Funds	1,500.00
	$61,572.34

The Cash in Bank was reconciled with the certificate obtained from the banker and the Petty Cash Fund was verified by actual count. The traveling funds in the hands of the salesmen were verified by certificates from the salesmen; these certificates were also compared with the last expense reports submitted by the salesmen.

Notes Receivable--$2,500.00

These notes from customers were inspected by us; none of them is past due and they are considered collectible.

Accounts Receivable--$75,000.00

The lists of open balances prepared by the company's bookkeepers were checked against the various Accounts Receivable Ledgers and all doubtful accounts were scrutinized and fully investigated. The accounts that appeared doubtful amounted to $2,100.00, against which there is an adequate reserve of $2,325.00.

Inventories--$281,725.00

The inventories were all taken at cost, which was considerably lower than the market. The prices and extensions of the raw materials inventory ($95,000.00) were verified; the quantities were checked with the balances shown in the stores records, and tested by an analysis of purchases and materials used and by application of the inventory at the beginning of the period. We wish to suggest that the taxes paid and the insurance carried on stores be included as a percentage addition to the purchase price of materials rather than as a part of factory overhead. The inventory of goods in process ($103,000.00) was readily verified thru the complete records kept in the cost department. The inventory of finished goods ($83,725.00) was verified by actual

count on January 20, 1918, after making the necessary adjustments for goods completed and sold since the beginning of the year. We also obtained the general manager's certificate, which covers all the inventories.

Land--$20,000.00

Buildings--$250,000.00

Machinery and Factory Equipment--$295,000.00

Office Furniture and Fixtures--$5,000.00

No additions to the Plant and Property Accounts were made during the year ending December 31, 1917. The deeds to all the properties were examined and we assured ourselves that there were no liens against these assets. It is our opinion that the reserves for depreciation (Buildings--$25,000.00; Machinery, etc.--$44,000.00; Office Furniture and Fixtures--$1,000.00) are ample.

Goodwill--$300,000.00

There has been no change in this account since the company purchased the goodwill of the Reliable Manufacturing Company. The excellent showing made by your company fully warrants its retention on the books in an undiminished form and indicates the wisdom of the purchase.

Prepaid Insurance--$600.00

The unexpired or prepaid insurance was verified from the insurance policies themselves; these were inspected at the office of the trustee for the bond issue. The total insurance in force on December 31, 1917, amounted to $760,000.00.

Notes Payable--$25,000.00 (Bank Loans)

This account was verified by the certificate obtained from the banker. All cancelled notes for loans paid during the year were examined and were found attached to the vouchers covering their payment.

Vouchers Payable--$44,875.00

The list of vouchers payable was compared with the vouchers shown as unpaid in the voucher register and with the vouchers contained in the unpaid voucher file. We satisfied ourselves that all liabilities as at December 31, 1917, were taken up in the books.

Dividends Payable--$40,000.00

The declaration of this dividend was verified by an inspection of the minute book. The amount of the liability was further established by the payment of the dividend on January 10, 1918.

Accrued Accounts

Taxes	$159,015.02
Interest on Bonds	2,500.00
Interest on Loans	125.00

The accrued liabilities for property taxes and the interest on bonds and loans were verified during the course of our audit by an inspection of the payments therefor. The accrued taxes set up to meet the provisions of the 1917 War Income and Excess Profits taxes are discussed more fully later.

Ten-Year, 5% First-Mortgage Bonds--$100,000.00

Capital Stock--$400,000.00

There have been no changes in these accounts during the year. By an inspection of the trust indenture, we found that all the provisions thereof had been fully complied with. The capital stock, which was all issued in January, 1916, is still held by the original subscribers; the certificate book and the stock ledger were inspected by us. It should be encouraging to the management that so large a portion of the stock is held by the department heads and the employees of the company. The stock is distributed and held as follows:

Officers	2,000	shares	50%
Department Heads . . .	1,000	"	25%
Office Employees	200	"	5%
Salesmen	400	"	10%
Outside Investors . . .	400	"	10%
Total	4,000	"	100%

SOURCES OF FUNDS PROVIDED AND THEIR DISPOSITION

The following summary will indicate the funds provided during the year under audit and the disposition made thereof:

Funds were provided from the following sources:

Surplus Net Profits for year ending December 31, 1917.	$350,000.00
Depreciation currently provided for	35,000.00
	$385,000.00

Which were applied and accounted for as follows:

Dividends declared	$ 40,000.00
Excess Profits and additional Federal Income Tax provided for	137,442.68
Balance represented by increase in working capital as summarized below	207,557.32
	$385,000.00

WORKING CAPITAL

Particulars	December 31 1916	December 31 1917	Increase or *Decrease
Current Assets:			
Cash	$ 47,855.00	$ 61,572.34	$ 13,717.34
Notes Receivable . . .	2,700.00	2,500.00	* 200.00
Accounts Receivable . .	23,200.00	72,675.00	49,475.00
Inventories	86,500.00	281,725.00	195,225.00
	$160,255.00	$418,472.34	$258,217.34
Deduct--Current Liabilities:			
Notes Payable	$110,000.00	$ 25,000.00	*$ 85,000.00
Vouchers Payable . . .	95,000.00	44,875.00	* 50,125.00
Dividends Payable	....	40,000.00	40,000.00
Accrued Accounts . . .	15,855.00	161,640.02	145,785.02
	$220,855.00	$271,515.02	$ 50,660.02
Balance--Net Working Capital	**$ 60,600.00	$146,957.32	$207,557.32

**Deficiency of working capital or excess of current liabilities over current assets.

PROVISION FOR FEDERAL INCOME AND EXCESS PROFITS TAX

According to the provisions of the Federal Income and Excess Profits tax laws, your company must pay an excess profits tax amounting to $137,214.02 and an income tax amounting to $13,601.00. These amounts were computed as follows:

Invested Capital, January 1, 1917:

Capital Stock and Surplus	$675,000.00
Add--Reserve for Income Tax (not deducted in 1916 return)	5,610.00
Reserves for Bad and Doubtful Accounts (both of which may be added to determine the invested capital, since they are not deductible in computing the income tax)	1,800.00
	$682,410.00

Your net income for the year amounted to $350,000.00. To this must be added the amount of the reserve created for income taxes during 1917, or $13,372.34. From the sum of the two we have deducted the bad debts actually written off during the year ($1,275.00) and have added the reserve for bad debts created during the year ($1,800.00); the result, or $363,897.34, is therefore the net income subject to the Excess Profits and Income taxes. The computation for the Excess Profits Tax is as follows:

Invested Capital $682,410.00

Net Taxable Income $363,897.34

Bracket	Net Income Divided According to Percentages of Invested Capital	Per Cent of Invested Capital			Amount of Tax
1	$102,361.50	15%	less deductions of 8% of Invested Capital .	*$54,592.80	
			and	3,000.00	
				$57,592.80	
			Leaving	44,768.70	
			taxable at 20%		$ 8,953.74
2	34,120.50	15 to 20%	" " 25%		8,530.13
3	34,120.50	20 to 25%	" " 35%		11,942.17
4	54,592.80	25 to 33%	" " 45%		24,566.76
5	138,702.04	In excess of 33%	" " 60%		83,221.22
	$363,897.34		Excess Profits Tax		$137,214.02

The Income Tax has been computed as follows:

Net Income as above	$363,897.34	
Deduct--Excess Profits Tax	137,214.02	
Amount taxable at 6%	226,683.32	13,601.00
Total Federal Income and Excess Profits Taxes . .		$150,815.02

*This is the rate allowed to corporations not in business during the pre-war period.

Because the war Excess Profits Tax is an unusual and extraordinary expense, determinable only after the net profits of the year have been ascertained, the liability therefor and the liability for the additional amount of income tax resulting from the computation ($228.66), have been set up out of the Surplus Account. The amount thus charged to Surplus ($137,442.68) is accounted for as follows:

Excess Profits Tax (as above)		$137,214.02
Federal Income Tax	$13,601.00	
Deduct--amount already reserved during the year	13,372.34	228.66
		$137,442.68

The total of accrued taxes shown in the balance sheet in two amounts ($137,442.68 and $21,572.34) is composed of the following items:

Excess Profits Tax (provided out of Surplus)	$137,214.02
Additional Federal Income Tax (provided out of Surplus and resulting from computation after applying the Excess Profits Tax)	228.66
Federal Income Tax reserved during the year . . .	13,372.34
Property taxes reserved during the year	8,200.00
	$159,015.02

SCOPE OF AUDIT

Besides the work already indicated in this report, we checked all the general ledger postings, vouched the disbursements, and examined the vouchers therefor, for the months of January, April, August, and December, 1917. We verified the footings of the voucher register for these same months, examined the factory and office pay rolls for the months of January and December, 1917, inspected all journal entries, including the customer's allowance journals, and made a detailed examination of the records of the cost department. We found the cost system very efficient and properly tied up with the general books.

In conclusion, we wish gratefully to acknowledge the courtesies extended by your organization to our representatives during the course of the audit.

Yours very truly,

BROWN, SMITH & COMPANY,

Certified Public Accountants

Exhibit II

X. Y. Z. MANUFACTURING COMPANY

PROFIT AND LOSS STATEMENT
For the year ending December 31, 1917

Sales (gross)			$1,515,000.00
Deduct--Discounts allowed			15,000.00
Net Sales			$1,500,000.00
Deduct--Cost of Sales (Exhibit IIa):			
Direct Labor		$300,000.00	
Materials Used		450,000.00	
Manufacturing Overhead		150,000.00	900,000.00
Gross or Manufacturing Profit			$ 600,000.00
Deduct--Selling and Administrative Expenses (Exhibit IIb):			
Selling Expenses:			
Advertising	$ 50,000.00		
Salaries and Traveling Expenses . . .	97,000.00		
General Expenses .	3,000.00	$150,000.00	
Administrative Expenses:			
Executive Salaries .	$ 48,200.00		
Federal Income Tax .	13,372.34		
Clerical Salaries .	17,427.66		
Reserved for Bad Debts	1,800.00		
General Office Expense	9,200.00	90,000.00	240,000.00
Net Profits from Operation			$360,000.00
Deduct--Interest:			
On Bonds		5,000.00	
On Loans		5,000.00	10,000.00
Surplus Net Profits (carried to Balance Sheet, Exhibit I)			$350,000.00

Exhibit IIa

X. Y. Z. MANUFACTURING COMPANY

COMPARISON OF THE COST OF SALES
For the years ending December 31, 1916,
and December 31, 1917

Explanation		1916	1917	Increase	Per Cent of Increase
Materials Used		$363,750.00	$450,000.00	$86,250.00	23.7
Direct Labor		243,600.00	300,000.00	56,400.00	23.2
Superintendence		8,275.00	10,100.00	1,825.00	22.0
Indirect Labor		35,080.00	38,000.00	2,920.00	8.3
Depreciation:	Buildings	12,500.00	12,500.00	....	....
	Machinery	22,000.00	22,000.00	....	....
Insurance:	Buildings	2,000.00	2,000.00	....	....
	Machinery	2,300.00	2,300.00	....	....
	Stores	680.00	1,000.00	320.00	47.1
Taxes:	Buildings	2,445.00	2,500.00	55.00	2.3
	Machinery	2,960.00	3,000.00	40.00	1.4
	Stores	2,340.00	2,700.00	360.00	15.4
Light, Heat, and Power		40,470.00	42,000.00	1,530.00	3.8
Building Repairs		5,750.00	6,000.00	250.00	4.3
Machinery Repairs		5,850.00	5,900.00	50.00	.9
Totals		$750,000 00	$900,000.00	$150,000.00	20.0

COMPARISON OF UNIT COSTS
Commodity A

Explanation		1916 Sales--500 Units		1917 Sales--502 Units		Unit Increase or *Decrease
		Cost	Unit Cost	Cost	Unit Cost	
Materials Used		$152,000.00	$304.00	$160,000.00	$318.72	$14.72
Direct Labor		95,500.00	191.00	101,000.00	201.20	10.20
Superintendence		3,325.00	6.65	4,200.00	8.37	1.72
Indirect Labor		13,380.00	26.76	16,200.00	32.27	5.51
Depreciation:	Buildings	6,100.00	12.20	6,100.00	12.15	* .05
	Machinery	11,100.00	22.20	11,100.00	22.11	* .09
Insurance:	Buildings	1,040.00	2.08	1,040.00	2.07	* .01
	Machinery	1,275.00	2.55	1,275.00	2.54	* .01
	Stores	270.00	.54	270.00	.54	...
Taxes:	Buildings	1,200.00	2.40	1,255.00	2.50	.10
	Machinery	1,460.00	2.92	1,500.00	2.99	.07
	Stores	840.00	1.68	900.00	1.79	.11
Light, Heat, and Power		21,700.00	43.40	22,000.00	43.82	.42
Building Repairs		2,810.00	5.62	3,060.00	6.10	.48
Machinery Repairs		3,000.00	6.00	3,100.00	6.18	.18
Totals		$315,000.00	$630.00	$333,000.00	$663.35	$33.35

Exhibit IIa (Cont'd)

X. Y. Z. MANUFACTURING COMPANY

COMPARISON OF UNIT COSTS
Commodity B

Explanation		1916 Sales--300 Units		1917 Sales--305 Units		Unit Increase or *Decrease
		Cost	Unit Cost	Cost	Unit Cost	
Materials Used		$ 88,750.00	$295.83	$140,000.00	$459.02	$163.19
Direct Labor		76,100.00	253.67	110,000.00	360.66	106.99
Superintendence		2,200.00	7.33	3,000.00	9.83	2.50
Indirect Labor		5,000.00	16.67	9,000.00	29.51	12.84
Depreciation:	Buildings	1,000.00	3.33	1,000.00	3.28	* .05
	Machinery	2,000.00	6.67	2,000.00	6.56	* .11
Insurance:	Buildings	40.00	.13	40.00	.13	...
	Machinery	85.00	.28	85.00	.28	...
	Stores	200.00	67	500.00	1.64	.97
Taxes:	Buildings	125.00	.42	125.00	.41	* .01
	Machinery	250.00	83	250.00	.82	* .01
	Stores	750.00	2.50	1,000.00	3.28	.78
Light, Heat, and Power		3,500.00	11.67	3,000.00	9.83	* 1.84
Building Repairs		....	......	....	......	...
Machinery Repairs		....	......	....	......	...
Totals		$180,000.00	$600.00	$270,000.00	$885.25	$285.25

Commodity C

Explanation		1916 Sales--200 Units		1917 Sales--210 Units		Unit Increase or *Decrease
		Cost	Unit Cost	Cost	Unit Cost	
Materials Used		$123,000.00	$ 615.00	$150,000.00	$ 714.29	$ 99.29
Direct Labor		72,000.00	360.00	89,000.00	423.81	63.81
Superintendence		2,750.00	13.75	2,900.00	13.81	.06
Indirect Labor		16,700.00	83.50	12,800.00	60.95	* 22.55
Depreciation:	Buildings	5,400.00	27.00	5,400.00	25.71	* 1.29
	Machinery	8,900.00	44.50	8,900.00	42.38	* 2.12
Insurance:	Buildings	920.00	4.60	920.00	4.38	* .22
	Machinery	940.00	4.70	940.00	4.48	* .22
	Stores	210.00	1.05	230.00	1.10	.05
Taxes:	Buildings	1,120.00	5.60	1,120.00	5.33	* .27
	Machinery	1,250.00	6.25	1,250.00	5.95	* .30
	Stores	750.00	3.75	800.00	3.81	.06
Light, Heat, and Power		15,270.00	76.35	17,000.00	80.95	4.60
Building Repairs		2,940.00	14.70	2,940.00	14.00	* .70
Machinery Repairs		2,850.00	14.25	2,800.00	13.33	* .92
Totals		$255,000.00	$1,275.00	$297,000.00	$1,414.28	$139.28

Exhibit IIb

X. Y. Z. MANUFACTURING COMPANY

COMPARISON OF SELLING AND ADMINISTRATION EXPENSES

For the years ending December 31, 1916, and December 31, 1917

SELLING EXPENSES

Explanation	1916	1917	Increase
Salaries of Salesmen	$ 50,000.00	$ 54,000.00	$ 4,000.00
Office Salaries	3,000.00	3,500.00	500.00
Traveling Expenses	37,000.00	39,500.00	2,500.00
Advertising	45,000.00	50,000.00	5,000.00
**Portion of General Expenses	2,000.00	3,000.00	1,000.00
Totals	$137,000.00	$150,000.00	$ 13,000.00

**Includes office supplies and stationery, depreciation, insurance on office furniture and fixtures, telephone, telegraph, and postage.

ADMINISTRATION EXPENSES

Explanation	1916	1917	Increase or *Decrease
Executive Salaries	$48,700.00	$48,200.00	*$ 500.00
Reserves for Bad and Doubtful Accounts	1,800.00	1,800.00	.....
Clerical Salaries	17,890.00	17,427.66	* 462.34
Federal Income Tax	5,610.00	13,372.34	7,762.34
General Office Expenses:			
Stationery and Office Supplies	3,500.00	3,600.00	100.00
Telephone and Telegraph	2,250.00	2,200.00	* 50.00
Postage	1,750.00	1,800.00	50.00
**Depreciation Office Furn. & Fixt.	410.00	410.00	.....
Insurance	25.00	25.00	.....
Miscellaneous	1,065.00	1,165.00	100.00
Totals	$83,000.00	$90,000.00	$ 7,000.00

**$90.00 additional depreciation is included under the caption "Portion of General Expenses" under Selling Expenses.

CHAPTER XXXIX

THE AUDITOR'S REPORT: WHAT IT SHOULD COVER

An auditor is not justified in assuming that the management of a company is fully familiar with the entire operating details revealed by the company's accounts and that therefore it needs no detailed report of operations and financial position. The manager of an industry is generally so engrossed with executive duties that he finds little time to make a careful analysis of the accounts; it is for this reason that he engages the public accountant to audit the affairs of his company. He expects the auditor to show him how and why the operating results reported in the books are correct. He wants to know the causes for increased costs, the reasons for larger or smaller profits, and just where the company stands financially. He is interested in knowing whether the profits were reinvested in fixed assets or whether they served to increase the company's working capital. And, finally, he is interested in knowing whether the accounting department, which he intrusted with the important function of reflecting truly, in the books, the results of operations and the financial position of the company, is doing its work efficiently.

The two questions uppermost in the manager's mind at the end of the fiscal period are: How much profit

has the company made? and, How were the profits made? The auditor should therefore begin his report with the subject of greatest interest to the management, namely, the Results of Operations. Under this caption he should indicate clearly the factors that led to enhanced profits; this can best be done by comparing the current year's operations with those of the prior year. If sales have increased, the auditor should show how much of the increase was due to larger volume and how much to higher prices obtained for the company's product. The percentages of costs, gross profits, selling and administrative expenses, net profits from operations, interest, and surplus net profits to sales should all be clearly indicated and the changes reflected in detail in whatever subsidiary exhibits are deemed necessary. The text of the report should not be burdened with these details, but should outline in summary form the various changes that have occurred, accompanied by interpretative comments.

The nature of the balance sheet accounts should be briefly discussed with reference to their composition and the methods employed for their verification. The manager is naturally interested in knowing that the assets and liabilities have all been properly accounted for and that they have been correctly valued for balance sheet purposes.

An application of funds statement is of great value in indicating the sources from which funds were provided and their disposition; in the statement one may readily see whether the profits and other funds were utilized to increase the working capital or whether they were used for making additions to capital assets; the growth or decrease in working capital as compared to any prior date is also revealed. Without a knowl-

edge of the amount of working capital available for future operations, no intelligent planning can be done.

The Federal Income Tax laws, supplemented by the Excess Profits Tax legislation, are open to so many interpretations and are sometimes so vague that their application to a given situation is often beset with numerous troublesome difficulties. The auditor must make a thoro study of these laws; without full knowledge he cannot hope to interpret correctly the accounts of any business organization. The liability for the tax must appear in the books and the auditor must know that the liability has been correctly set up. Because of the complexity of Federal Income Tax legislation, the auditor should indicate clearly, in the text of his report, how the liability was ascertained; the company's manager is not supposed to be a tax expert.

The regular Federal Income Tax liability should be provided for currently each month and should be included as an operating expense; it is a tax on net income, and since net income from each month's operations should be known, the tax thereon should be included as an additional monthly charge. No provision can, however, be made currently for the Excess Profits Tax; the tax is based on the entire net income for a year related to net income during the pre-war period (the years 1911, 1912, and 1913) and is calculated by subdividing the entire net income into so-called "brackets" which represent percentages to invested capital and the increments of income subject to varying rates of taxation. To provide for this tax liability monthly, would involve a great amount of calculation which might be all nullified by the final results. The Government's intent is to tax the final result of normal operations; to include the tax as a cost will

introduce an element in price making which will distort the profits as compared to pre-war profits.

The legislation is in reality unfortunate from the public point of view. Every manufacturer and every business enterprise that can, will increase its prices by an arbitrary estimate so that the tax may be recovered thru sales with the inevitable result (as in the case of all taxes on industry) that the consumer will pay the tax. The increased prices due to the estimate of Excess Profits Tax will in turn increase the profits for the ensuing year, so that each succeeding year the public may expect to pay more. A tax of this kind, unless supplemented by maximum price legislation, is not a tax on business but a tax on the consumer; the business proprietor and the manufacturer will shift the tax in the same way that all other taxes are shifted.

Since the Excess Profits Tax cannot be definitely known until the year's net income has been determined, the liability for the amount should be provided out of surplus or undivided profits. It should not be regarded as a current operating charge, since it is a tax on the result of an entire year's operation. The Excess Profits Tax law has further complicated the determination of the Federal Income Tax. The amount of Excess Profits Tax is deductible from net income and the income tax is computed on the remainder; the amount set aside during the year as income tax liability may therefore be entirely wrong and will need adjustment. One can readily see that an auditor may be of great service to a client, by showing clearly the computations that are necessary in fixing the tax liability; and, since it appears inevitable, under our present system of industrial organization and taxation, that the consumer must pay all taxes, the auditor may well advise his client to provide

currently for all Federal taxes and construct his reserve therefor on a basis of taxation in past years; in other words, to base his estimates on the combined Excess Profits and Income taxes of past years (guided, of course, as far as possible by the relation existing between results of the current year and operations during past years).

The exhibits, or schedules, in an auditor's report are as important as the text. The balance sheet indicates the financial position of a concern and the accumulated results of operation; it should be logically grouped, preferably in the order of current realization and liquidation. The management is not primarily interested in the fixed assets and liabilities; these are more or less unchanged by current conditions. But there is a decided value in knowing what assets are readily convertible into cash, what immediate liabilities must be paid, and how much is then available to provide for current expansion. The group of accounts entitled "Current Assets" should represent only assets that are being constantly converted into cash. If we include thereunder, Cash, Notes Receivable, Accounts Receivable, and Inventories we are observing the idea of convertibility fully. Cash is used to pay liabilities which were probably largely incurred to provide inventories; inventories are converted into accounts receivable, and these in turn are converted into cash. There is an uninterrupted process of conversion.

The more or less fixed assets and liabilities should appear next in the balance sheet. These accounts indicate the character of an industry's permanency just as the current assets and liabilities indicate its immediate strength. The deferred expenses should come last, since these in reality are not assets at all. Their

value on the balance sheet is dependent upon the preceding groups of assets which establish the permanency of an organization; it is this very basis of permanency, insuring the continuation of operations, which gives value to the deferred items that are to be charged against future operations.

After all the assets and liabilities have been included on the balance sheet, the remainder, which is in reality the most important group of accounts, represents the net worth of the company or business. It is essential that the accounts indicating net worth be in one group and that the group total stand out clearly in one amount which, when added to the liabilities, will balance the total assets. Net worth is not a liability; it represents the capital contributed and the accumulated results from operations. It must therefore be the excess of assets over liabilities, and it indicates the real financial strength or power of an organization. It shows what the investors or the stockholders have accomplished by the use of their capital, and the present value of their contributions; it indicates the amount available as rewards for the risk of investment (dividends or profits) and the amount which ought to be retained in the business as a protection to their capital. Net Worth is such a distinct account that it should always be expressed on the balance sheet in this form. The English balance sheet construction on the credit side suffers particularly because it fails in this essential, beginning as it does with capital stock and ending with the surplus, thus separating the two accounts which establish not only the net worth of the business but the value of the proprietary interests.

The second exhibit in an auditor's report should be the profit and loss statement for the period reviewed.

This should indicate gross sales, deductions from sales, net sales, the component elements of the cost of sales (and the total thereof), gross profits from operations, selling and administration expenses, net profits from operations, deductions for interest paid or incurred (which represents a sharing of net profits from operations with those who have furnished some of the operating capital), and finally the surplus net profits to be carried to the Surplus Account. Unless the percentages to sales of these various operating factors and results have been indicated in the report, they should be shown in the profit and loss statement.

Whenever necessary, the profit and loss statement should be supplemented by details of the cost of sales and the selling and administration expenses. Wherever possible, the subsidiary exhibit for the cost of sales should be augmented by a comparison with prior year or years, so as to indicate clearly changes in unit costs or, if unit costs cannot be shown, changes in the various operating costs. It is only thru comparisons of this kind that changes in operations can be interpreted and traced intelligently. It may not always be possible for the auditor to offer the proper suggestions to remedy weaknesses revealed thru such comparisons, but if he has shown where the defects are and what they are, he has given the management all the clues necessary for a thoro investigation. The changes in costs and expenses should, of course, be reflected by and agree with the comments in his report.

The last exhibit may be a comparison of balance sheets (in summary form). Thru this comparison the changes in working capital indicated in the application of funds statement of the report will be sub-

stantiated, and in general the increase or decrease in financial strength will be revealed.

Public accountants are coming to use, more and more, either percentages or charts to indicate the comparisons between operating factors or the relations existing between income and expense. Charts may be used advantageously when comparing results and operations over a long period of time, or in analyzing these in detail by months or shorter periods during a year. For example, monthly sales could be conveniently charted with monthly selling expenses and production with production costs. Such charts might in some instances appeal more strongly than a schedule prepared on a percentage basis, altho the latter would reveal the same thing. The whole matter is really one of psychology; a practical business man may prefer percentages, the imaginative mind prefers a picture or a chart. In making use of these the auditor should be guided largely by the type of executive to whom he is reporting. No one, however, will deny that an audit unaccompanied by either is inadequate and unsatisfactory.

CHAPTER XL

GENERAL CONSIDERATIONS

The Working Papers

The proper disposition and arrangement of the auditor's working papers are matters which have engaged the minds of public accountants for some time. The working papers must be preserved intact and should be so arranged and indexed that any section of them can be made accessible. The small audit offers no difficulties and the following procedure is recommended:

1. Arrange all working sheets according to the accounts with which they deal.
2. Group all the working papers according to the arrangement and order of the accounts as they appear in the balance sheet and the profit and loss statement. Thus the papers covering the cash count and cash in bank would come first in the file. These would be followed by the schedules and papers referring to notes receivable, etc., thru the balance sheet accounts. Under the profit and loss accounts the arrangement would provide first for the general schedules and second for the subsidiary schedules: for example, the cost of sales account section would first cover the general schedules, but under each general schedule should be found the information contained in the auditor's subsidiary statements or exhibits relating to the cost of sales.

3. Index all the papers on a sheet or sheets placed on top or in front of the entire set of working papers. The index should be arranged according to the accounts as indicated above, and the working papers should be numbered consecutively. The index should indicate the kind of information contained in each paper.
4. Every working paper or sheet should be initialed by the accountant who prepared it, so that responsibility for all the work may be properly allocated. A summary of the work of each accountant might be conveniently placed below the index. This will be of aid in making assignments when the same accounts are again audited.
5. The papers, if not too voluminous, should all be fastened together, or placed in a folder or pouch, and filed away in alphabetical order. At the same time the file clerk should prepare a card indicating the date when the audit was started and when it was completed. This card may be placed in a tickler file (arranged by dates) and will serve to inform the auditor when the audit will come up again, thus aiding him in making the proper assignments to the members of his staff. If the card also indicates the senior in charge of the engagement and his assistants, it will be possible to assign the same force to the next audit.

The working papers on some engagements are so voluminous that they cannot be handled in a regular file; whenever this is true, the papers should be placed in large cardboard boxes arranged according to indices, the latter to be placed in the regular files. The papers may well be arranged in logical groups with a separate index for each group. Index tabs should be used to indicate the various groups in the box, and the group prefix should be shown on each working paper so as to prevent misfiling.

The Conduct of an Audit

After an engagement has been obtained by the auditor, he should prepare an engagement memorandum containing the following information:

1. Name of client.
2. Client's address.
3. Client's telephone number.
4. Work arranged for by Mr.......... with Mr.......... (of the client's office).
5. Report to be addressed to Mr..........(title).
6. Account to be charged to..........
7. Nature of business.
8. Nature of audit or examination.
9. When to start.
10. Estimate of time required.
11. Staff requirements.
12. Rates: Senior in charge.
Juniors.
Firm members.
13. Report expected..........(date).

The senior to take charge of an engagement should know of the work about a week before it is to start, so that he may get together any working papers (if the accounts were previously audited) and so that he may provide his assistants. He should bear with him a letter of introduction to the proper official in the client's office, and should impress upon his assistants that any matters to be taken up with the client are to be referred to him.

The auditor in charge of an engagement should provide himself with time reports on which to report the

time of himself and assistants; these reports should indicate not only the hours devoted to the work each day but the nature of the work as well. If the engagement is out of the city, he must also take with him a sufficient number of expense reports. The auditor should at all times be polite and deferential. He should introduce his assistants properly and should request introductions for himself and assistants to the various officials and accountants with whom he and his staff will have relations. Diplomacy and tact are necessary to establish the proper attitude in the minds of the bookkeepers or accountants whose work is being audited; it is always wise to make the client's employees feel that their assistance is appreciated and that they know their business. If there is something radically wrong with the system of accounting, the client himself rather than his office force should be informed thereof. The auditor should ask only such questions as are absolutely necessary; he should learn to dig in and to determine things for himself. He should never jump at conclusions, but reserve his judgments until he has investigated every phase of a situation thoroly. He must not get into that frame of mind whereby he thinks every error the work of a "crook" or an incompetent; he should be lenient, patient, and constructive in whatever advice he may offer.

It is important that the auditor and his staff have a proper place for work, preferably in a room separated from the general office. This provided, the auditor should next familiarize himself and staff with the books of account and immediately distribute the work. This will require the exercise of considerable judgment, for work should be divided according to the

various special abilities of the assistants. Some of the accountants may be adepts at cost and manufacturing problems; others may have a special knack for inventory verifications. Some may be expert in analysis and in the examination of vouchers; others may be especially rapid and accurate in verifying footings or checking postings. The auditor should, of course, give thought to these things even before he starts an audit, so that as little time as possible will be consumed in making the assignments.

All schedules prepared by the auditor and his assistants should agree in amounts with the figures he uses in his report and statements. Any differences between the accounts per books and the amounts indicated in the auditor's report should be reconciled and explained in the working papers. Before leaving the client's office all the papers must be in order and no questions left unanswered; it is very embarrassing for an auditor after he has said good-bye to come back and confess to his client that he has overlooked some matters or desires further information on others.

During the course of an audit, the senior in charge should not neglect to make copious, clear notes on any matters which deserve further scrutiny or which should receive mention in the report. If these notes are clear and all the working papers in order, it will be a fairly easy task to write the report and to prepare the exhibits. Whenever possible, the report and the exhibits should be prepared at the client's office. It is often difficult to convince a client that some work must be done after the auditor leaves the engagement, and consequently he may object to passing the auditor's bill when the charge is in excess of the time actually put in at his office.

PREPARATION OF THE REPORT

The report and statements should always be prepared in rough form by the senior in charge of the work; he is familiar with the entire situation and is more competent to emphasize the essentials than a member of the auditing firm. A firm member should, of course, pass on the final form of the report and should advise with reference to diction. Many good seniors have resigned their positions because of unjust criticisms and rebukes from firm members, having certain hobbies or pet phraseologies. The general policies of a firm with reference to report construction should assuredly be followed, but not to the point of excluding all individuality on the part of the senior.

The report should be filled with essentials and the client should not be told a great many things that he knew possibly years before the auditor began to practice. The client should receive credit for possessing a fair degree of intelligence, and his time should not be consumed with a host of elementary explanations that imply an ignorance of his own business. Again, if a client has engaged an auditor to investigate only a certain phase of his business, it is absurd to foist on him a report which discusses in addition many things on which no information is desired; there is no need to be presumptious nor to endeavor to impress the client with the vast wisdom of the auditor. The two most important things for any auditor to learn, whether he be a senior accountant or the member of a firm, is modesty and the conviction that no man has a patent on knowledge. If these two qualities are coupled with intelligence and ability, the high and dignified profession

of public accounting will speedily receive wider recognition and bring honor to its votaries.

The Future of the Profession

It is highly encouraging to members of the profession that solid progress is being made thruout the United States in legislation looking towards the development and elevation of public accounting. Nearly all the states now have Certified Public Accountants laws, and altho some of these are inadequate, pressure from without will in time raise all to a uniform standard. The great work of the American Institute of Accountants along this line cannot be too strongly commended; many states are already adopting the Institute examinations, and it is hoped that all will follow. These developments will, we hope and believe, very soon drive the charlatan from the profession and make it impossible for anyone to practice who does not possess a recognized certificate or who is not employed by a firm or individual possessing such a certificate. It is as foolhardy to permit an incompetent to audit books and give advice to business men as it is to employ a "quack" to heal our physical ills.

The leading universities and many good correspondence schools are also doing a great deal of commendable work in preparing men for the profession. It is to be hoped that the American Institute of Accountants will aid these schools in the establishment of adequate curricula by supplying them with proper advice regarding tests and instruction. The schools themselves can aid by offering better remuneration for accountancy instruction. The government too is emphasizing the importance of good accounting and is giving more and

more recognition to the public accountant's services. These and many other facts and tendencies lead us to believe that those who are capable and willing to meet fully the demands of public accountancy will find opportunity for the development and application of their talents and energies in a profession which can be confidently expected to wield a profound influence over every phase of the commerce and government of the world.

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